



INDIVIDUAL NPDES PERMIT FOR DISCHARGE

from the

**TENNESSEE DEPARTMENT OF TRANSPORTATION (TDOT)**  
**MUNICIPAL SEPARATE STORM SEWER SYSTEM**

**PERMIT NO. TNS077585**

Under authority of the Tennessee Water Quality Control Act of 1977 ([T.C.A. 69-3-101](#) et seq.) and approval from the United States Environmental Protection Agency under the Federal Water Pollution Control Act, as amended by the Clean Water Act of 1977 ([33 U.S.C. 1251](#), et seq.) and the [Water Quality Act of 1987, P.L. 100-4](#), TDOT, as an operator of a statewide municipal separate storm sewer system, is authorized to discharge storm water runoff into waters of the State of Tennessee in accordance with the various eligibility criteria, administrative procedures, program requirements, reporting requirements, etc. set forth in parts I through VII herein.

This permit is issued on: Draft

This permit is effective on: Draft

This permit expires on: Draft



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Paul E. Davis, Director

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## **1. AUTHORIZATION AND SCOPE OF PERMIT**

### **1.1. AUTHORIZED DISCHARGES**

The Tennessee Department of Transportation (TDOT) is authorized to discharge, in accordance with the following conditions and provisions, storm water and allowable non-storm water from all portions of its municipal separate storm sewer system (MS4) within the State of Tennessee which includes areas outside other MS4 jurisdictions i.e. interstate highways, divided highways, multiple lane roads and primary roads and its facilities.

### **1.2. AREA OF PERMIT COVERAGE**

This permit authorizes storm water runoff from the state road and interstate highways right-of-ways that TDOT either owns or maintains and the facilities that TDOT owns and, or, operates throughout Tennessee.

Covered rights-of-way include, but are not necessarily limited to, state and interstate highways and their rights-of-way.

Covered facilities – which may hereinafter be referred to as “TDOT Owned/Operated Facilities” -- include Region Headquarters Facilities, District Headquarters Facilities, County Garages, Airport Hanger facilities, Truck Weigh Stations, Welcome Centers, Rest Areas, Floating Maintenance Facilities, Floating Salt Storage Facilities, Floating HELP Truck Facilities, and other facilities owned and/or operated by TDOT. (Note: “Floating” facilities are those that are separate from TDOT Region HQ Facilities, District HQ Facilities, or County Garages.)

### **1.3. ELIGIBILITY**

This permit authorizes discharges that are composed entirely of storm water from TDOT highways and from TDOT owned/operated facilities and from TDOT construction projects that disturb less than one (1) acre. The only flows other than storm water authorized under this permit are listed below.

The following non-storm water sources are allowed, provided that the division has not determined these sources to be substantial contributors of pollutants to the permittee’s storm sewer system:

- Water line flushing;
- Landscape irrigation;
- Diverted stream flows;
- Rising ground waters;
- Uncontaminated ground water infiltration (infiltration is defined as water other than wastewater that enters a sewer system, including

sewer service connections and foundation drains, from the ground through such means as defective pipes, pipe joints, connections, or manholes. Infiltration does not include, and is distinguished from, inflow.);

- Uncontaminated pumped ground water;
- Discharges from potable water sources;
- Foundation drains;
- Air conditioning condensate;
- Irrigation water;
- Springs;
- Water from crawl space pumps, foundation drains;
- Footing drains;
- Individual residential car washing;
- Flows from riparian habitats and wetlands;
- Dechlorinated swimming pool discharges;
- Sidewalk, driveway, and street wash water and
- Discharges or flows from fire fighting activities.

This eligibility condition applies at the time an application is submitted for coverage. For discharges not eligible for coverage under this permit, TDOT must apply for and receive an individual or other applicable general NPDES permit prior to discharging.

#### **1.4. RESPONSIBILITY OF THE PERMITEE**

##### **1.4.1. The TDOT is responsible for the following:**

- a. Compliance with permit conditions relating to discharges where they are operator;
- b. Implementing the Storm Water Management Program (SWMP) and the Storm Water Management Plan (transcribed herein from the Amended Consent Order and Agreement between TDOT and the division, dated March 10, 2004) on portions of the MS4 where they are the operator;
- c. Where permit conditions are established for specific portions of the MS4, the permittee need only comply with the permit conditions relating to those portions of the MS4 for which they are the operator; and
- d. A plan of action to assume responsibility for implementation of storm water management and monitoring programs on their portions of the MS4, should inter-jurisdictional agreements allocating responsibility between permittees be dissolved or in default.
- e. Submission of annual reporting requirements as specified in Part 5;
- f. Collection of monitoring data as required by Part 6, and according to such agreements as may be established between the TDOT and the division; and

- g. Insuring implementation of system-wide management program elements, including any system-wide public education efforts.

#### 1.4.2. Joint Responsibilities

Specific permittees are jointly responsible for compliance with the permit on portions of the MS4 where operational authority or authority to implement SWMPs over portions of the MS4 have been transferred from one permittee to another in accordance with legally binding interagency or inter-jurisdictional agreements. Both the owner and operator are jointly responsible for permit compliance on those portions of the MS4 referenced in such agreements unless specific responsibility provisions have been otherwise outlined in the agreements. The local community shall be the responsible agency with respect to MS4 inside the local community's geographic limits. TDOT will be the responsible agency with respect to its facilities, highways and roads.

### 1.5. LIMITATIONS ON COVERAGE

This permit does not relieve the permittee from responsibility for compliance with any other applicable federal, state, or local law, rule, standard, ordinance, order, judgment, or decree.

The following discharges are not authorized by this permit and may be required to have additional permit coverage:

- 1.5.1. Discharges of storm water from construction projects disturbing one (1) or more acres.

These discharges are to be covered under the Tennessee General Permit for Construction Activity. In addition to the conditions in this permit, the Storm Water Management Plan of the Amended Consent Order and Agreement between TDOT and Water Pollution Control dated March 10, 2004 has other conditions for all TDOT highway construction.

- 1.5.2. Discharges that are mixed with sources of non-storm water unless such non-storm water discharges are:

- a. In compliance with a separate NPDES permit; and
- b. Determined by the division not to be a substantial contributor of pollutants to waters of the state.

- 1.5.3. Storm water discharges currently covered under another permit.

- 1.5.4. Discharges of materials resulting from a spill, except emergency discharges required to prevent imminent threat to human health or to prevent severe

property damage, provided reasonable and prudent measures have been taken to minimize the impact of the discharges.

- 1.5.5. Discharges or discharge-related activities that are likely to jeopardize the continued existence of any species that are listed as endangered or threatened under the Endangered Species Act (ESA) or result in the adverse modification or destruction of habitat that is designated as critical under the ESA.
- 1.5.6. Discharges or discharge-related activities that cause a prohibited “take” of endangered or threatened species (as defined under Section 3 of the Endangered Species Act and 50 CFR §17.3), unless such takes are authorized under sections 7 or 10 of the Endangered Species Act.
- 1.5.7. Discharges that would cause or contribute to in-stream exceedances of water quality standards including, but not limited to:
  - 1.5.7.1. Discharges for which the division requires a different individual permit or alternative general permit.
  - 1.5.7.2. Discharges of any pollutant into any water for which a [Total Maximum Daily Load \(TMDL\)](#) has been approved by EPA, where the TMDL applies to storm water discharges from the MS4, includes a specific wasteload allocation, and recommends it be incorporated into an individual NPDES permit.
- 1.5.8. Discharges that do not comply with the division’s anti-degradation policy for water quality standards, pursuant to the Rules of the [Tennessee Department of Environment and Conservation](#) (TDEC), [Chapter 1200-4-3-.06](#), titled “Tennessee Antidegradation Statement.”

## 2. PERMIT CONDITIONS

### 2.1. AUTHORIZATION

Discharges under this permit are subject to the condition that TDOT develop, implement and enforce a Storm Water Management Program (SWMP) designed to achieve the goal of minimizing pollutants to the maximum extent practicable (MEP) in storm water runoff from TDOT highways and related facilities. The storm water management program must contain the following six minimum control measures: (1) public education and outreach, (2) public involvement/participation, (3) illicit discharge detection and elimination, (4) construction site storm water runoff control, (5) post-construction storm water management in new development and redevelopment, and (6) pollution prevention/good housekeeping for TDOT operations. The permit conditions applicable to each of these control measures are given as follows:

#### 2.1.1. Public Education and Outreach on Storm Water Impacts

*Permit requirement.* TDOT shall develop an education program to reach three major audiences, (1) the public, (2) TDOT contractors, and (3) TDOT employees. The program shall include the following:

##### 2.1.1.1. *The Public.* TDOT must develop, implement, and maintain a public education program to distribute educational materials to the community or conduct equivalent outreach activities explaining the impacts of highway storm water discharges on adjacent streams and lakes and the steps that the public can take to reduce pollutants in storm water runoff. Where possible, TDOT should participate and coordinate this program with all MS4s. The program shall specify how educational material is to be distributed to the public (calendars, brochures, signs, booklets, websites, radio/TV announcements, etc.). Topics to be considered for coverage include litter control, storm drain labeling, pet and livestock waste control, improper waste disposal, proper vehicle maintenance, or others as appropriate. The mechanisms to be considered for pursuing this program should include:

- a. Enhanced utilization of the existing TDOT website, media campaign in cooperation with other MS4s to heighten public awareness of storm water pollution, extended and enhanced use of existing environmental/conservation resources such as Adopt-A-Highway, Adopt-A-Plot, Keep America Beautiful, Tennessee Great American Cleanup Programs, and others,
- b. Continue TDOT's Litter Grant Funds Program, and
- c. Monitor and emulate the success of other State DOT public education programs.

##### 2.1.1.2. *Contractors.* TDOT shall develop, implement and maintain an education and training program for contractors conducting construction, repairs, or

maintenance of TDOT highways, rights-of-ways and other facilities. The program shall include the topics covered in the Tennessee Erosion and Sediment Control Handbook or an equivalent handbook or manual as approved by the division and also be consistent with the requirements set forth in the Amended Consent Order and Agreement between TDOT and WPC dated March 10, 2004.

- 2.1.1.3. *Employees.* TDOT shall develop, implement and maintain an education and training program for employees that conduct activities that may have impacts on storm water runoff. The program shall include employees involved in the design of highways (i.e., those that design drainage systems), employees involved in maintenance of highways and right-of-ways, employees involved with the preparation of contracts, selection of contractors, and review of contractor work, and employees working at TDOT garages, regional maintenance facilities, or other appropriate locations. Such training shall be consistent with the requirements for employee training specified in the Amended Consent Order and Agreement between TDOT and WPC dated March 10, 2004. Specific topics to be covered under this training area are given later in this section.

2.1.2. Public Involvement/Participation

*Permit Requirement.* The TDOT storm water management program must include mechanisms for public involvement and participation. The object is to allow citizens to participate in the development and implementation of the control measures incorporated into the program. Mechanisms which should be considered include citizen panels, public hearings, soliciting volunteers to educate others, citizen cleanup campaigns, adopt a highway programs, and others as appropriate. The program should encourage and promote citizen reporting of illegal spillage, dumping, or otherwise disposal of materials onto TDOT highways and right-of-ways. TDOT is encouraged to make use of EPA's Best Management Practices (BMPs) menu at the website [www.epa.gov/npdes/menuofbmps/menu.htm](http://www.epa.gov/npdes/menuofbmps/menu.htm). BMPs that may be considered for TDOT sponsorship include storm drain stenciling/markings, stream cleanups, reforestation programs, wetlands plantings, watershed organizations, stakeholder meetings, and attitude surveys

2.1.3. Illicit Discharge Detection and Elimination

*Permit Requirement.* The TDOT storm water management program must include the development, implementation and maintenance of a program to detect and eliminate illicit discharges onto TDOT right-of-ways and into TDOT storm sewer systems. The proposed program will be described in a written Illicit Discharge Detection and Elimination Plan to be submitted to the division for approval. The program, as described in the plan, shall address the following minimum elements:

- 2.1.3.1. Develop storm sewer mapping appropriate to allow the detection and sources of illicit discharges.
- 2.1.3.2. Develop a program to educate TDOT employees and contractors to recognize illicit discharges. The program should include procedures and policies for identifying non-storm water discharges into TDOT's storm sewers and reporting of them to TDEC.
- 2.1.3.3. Develop policies and procedures for dealing with third parties who drain storm water directly onto the TDOT right-of-way or storm sewer system. Evaluate a permitting program to control the quality of this water. The program should include a mechanism to notify TDOT permittees (i.e. utilities conducting work on TDOT right-of-ways, businesses seeking roadway access, or others seeking storm drainage access) of the prohibitions regarding discharge of non-storm water into TDOT's storm sewer system.
- 2.1.3.4. Evaluate instituting a requirement that applications for state highway access permits list the size of the property being disturbed by construction and the type of activity to take place on the property. Where the size of the property exceeds one acre, evaluate making the TDOT permit contingent upon proof that the construction activity is permitted under the Tennessee General Permit for Construction Activity. Where the proposed use of the property is industrial, evaluate making the TDOT permit is contingent upon proof that the permittee has received, or has applied for, an NPDES permit (either an individual permit or general permit or demonstrates that such permit is not required) for storm water discharge from industrial activity.
- 2.1.3.5. Develop a program to detect where significant amounts of soils are being tracked, washed or otherwise deposited onto TDOT right-of-ways or highways from construction activity. The program should address the regulatory mechanism to enforce prohibition of the deposit of soils onto the highways.
- 2.1.3.6. Develop, implement and maintain a program to detect and eliminate non-storm water discharges, including illegal dumping, into the TDOT system. The program should include a schedule for field screening to identify any existing illicit discharges. It should include a schedule for physical inspection of outfall pipes, with emphasis on those that have flow during periods of dry weather. Outfall pipes that are found to have flow during dry weather are to be further investigated. TDOT shall develop an investigation procedures plan equivalent to that presented in **Attachment B** to this permit.
- 2.1.3.7. Address the following categories of non-storm water discharges or flows (i.e., illicit discharges) only if they are identified as significant contributors of pollutants to the TDOT storm sewer system: water line flushing, landscape irrigation, diverted stream flows, rising ground waters, uncontaminated ground

water infiltration (as defined at [40 CFR §35.2005\(20\)](#)), uncontaminated pumped ground water, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, springs, water from crawl space pumps, footing drains, lawn watering, individual residential car washing, flows from riparian habitats and wetlands, dechlorinated swimming pool discharges, and street wash water (discharges or flows from fire fighting activities are excluded from the effective prohibition against non-storm water and need only be addressed where they are identified as significant sources of pollutants to waters of the state).

- 2.1.3.8. Provide interagency coordination of hazardous waste/material spills response and cleanup. Work with the Tennessee Emergency Management Agency, local fire departments and other agencies that respond to accidents and spill incidents on TDOT's roadways regarding potential stream impacts. Coordinate with these agencies to develop a program that minimizes the potential for their response to spills of chemicals or hazardous materials to cause pollutants to enter waters of the state. Develop procedures to notify an adjacent MS4 of any spills that may have an impact on their ability to comply with their municipal storm water permit.
- 2.1.3.9. Initiate a cooperative task force including TDOT and the Departments of Safety and Tourism to evaluate a program for reporting and reducing intentional or non-intentional disposal of materials from vehicles onto TDOT highways and right-of-ways.
- 2.1.3.10. Implement a plan to educate the public to spot and report illicit disposal and discharges. Provide a "hotline" for allowing the public to report such activities.
- 2.1.3.11. Develop and implement a training program to educate TDOT field and maintenance employees to recognize illicit connections and illegal discharges and to respond appropriately.
- 2.1.4. Construction Site Storm Water Runoff Control  
TDOT must develop, implement, and enforce a program to reduce pollutants in storm water runoff from TDOT construction activity. The program will include the following:
  - 2.1.4.1. A commitment that TDOT will submit a Notice of Intent for each TDOT construction project involving one (1) acre or more to be covered under the Tennessee General Permit No. TNR100000, Storm Water Discharges from Construction Activities and a commitment that TDOT will comply with the provisions of that permit.
  - 2.1.4.2. A commitment that TDOT will submit an application for coverage under the division's Aquatic Resource Alteration Permit (ARAP) for all activities that will

cross or alter streams or require construction equipment to enter streams or disturb stream banks.

- 2.1.4.3. A commitment that TDOT will develop, implement and enforce a Statewide Storm Water Management Plan to address TDOT construction activity in accordance with the provisions of the Amended Consent Order (the Order) and Agreement between TDOT and WPC dated March 10, 2004. The areas to be addressed in this plan are:
- a. Within 18 months of the effective date of the Order, or such additional time as TDEC may approve for good cause, TDOT shall develop a Statewide Water Quality Management Plan (herein after referred to as the "Plan"). The plan will be comprehensive and will incorporate all appropriate phases of project development, including environmental planning, design and construction.
  - b. TDOT will immediately form a working group to initiate formulation of the Plan. At a minimum, the group will include representatives with a substantial experience in the following disciplines: environmental protection, design, construction, hydraulics, maintenance, and material testing.
  - c. In addition, TDOT will initiate the steps necessary to select an outside expert to guide and assist in the development of the Plan.
  - d. TDOT will implement a process, subject to the approval of TDEC, providing for public review and comment during the development of the Plan. At a minimum, TDEC and TDOT shall hold at least three (3) public meetings, at least one in each grand division of the state, to receive comment from the public.
  - e. The completed plan shall be subject to TDEC approval. With TDEC's concurrence, parts of the Plan may be approved and implemented prior to final approval of the completed Plan.
  - f. At a minimum the plan shall include the following:
    - (1) Procedures describing TDOT's project planning activities, including the development of project alternatives, environmental analysis and selection of final alignment, and these procedures will incorporate the consideration of analyzing the potential impact of increased flows of storm water runoff events, and consideration of a no-build option and of project alternatives or designs that avoid or minimize impacts to waters of the state.
    - (2) Investigation, evaluation and development of state-of-the-art erosion prevention and sediment control BMP's.
  - g. Consideration of the use of specific erosion prevention controls that, through published comparative test data, have been shown to result in a 90 to 100 percent erosion reduction from bare soil.
  - h. Development of BMP guidelines that describe appropriate usage and proper implementation.

- i. Continuing training of TDOT personnel within all TDOT divisions having responsibility for any aspect of storm water management, including without limitation Environmental Planning and Permits, Design and Construction, and consideration of higher level training.
  - j. Review of TDOT construction contract provisions related to erosion prevention and sediment control, including consideration on the length of time soils are left exposed, the total area of exposed soil during construction, and periods of the year during which clearing, grubbing, excavation, grading, cutting or filling will not occur.
  - k. Consideration of the continued use of independent erosion prevention and sediment control supervisors for construction projects requiring ARAP or NPDES permits.
  - l. Development of Quality Assurance/Quality Control teams to conduct an appropriate level of review of construction projects requiring ARAP or NPDES permits.
  - m. Evaluation of water quality monitoring protocols to assist in evaluating the effectiveness of erosion prevention and sediment control practices.
  - n. Evaluation of compliance requirements for contractors relating to storm water management, including incentives and disincentives.
  - o. Identification of all potentially impacted waters of the state in the erosion prevention and sediment control plans.
  - p. Consideration of incorporating erosion prevention and sediment control for contractor-provided waste and borrow areas. Provision for periodic review of the Plan, including the opportunity for public input.
- 2.1.4.4. Interim Measures pending approval of the Plan
- a. Except as the Order may otherwise specifically provide for SR 840 and SR 26, the provisions of this section shall apply to each of TDOT's ongoing and future road projects requiring an NPDES or ARAP permit until such time as the Plan has been approved by TDEC for implementation.
  - b. All ongoing and future projects requiring an NPDES permit or ARAP permit shall have Erosion Prevention and Sediment Control Plans (EPSC). Each EPSC plan shall specify the timing of implementation of the measures vis-à-vis construction of the road project. At a minimum each EPSC plan shall require (i) that erosion prevention and sediment control measures be in place before clearing, grubbing, excavation, grading, cutting, or filling occurs, except as such work may be necessary to install EPSC measures; and (ii) that the EPSC measures and/or plan shall be modified as necessary so that they are effective at all times throughout the course of the project. In addition each EPSC plan shall address periods of the year during which clearing, grubbing, excavation, grading, cutting, or filling will not occur and limitations on the total area of exposed soil (areas that do not have a temporary or permanent stabilization) at any time during construction. These EPSC

plans shall be reviewed by an independent consultant (who has CPESC certification or has substantial professional experience in soil erosion and sediment control and has been approved, in writing by TDEC) who finds that the BMPs therein, if properly implemented, installed and maintained, are designed to manage erosion and prevent sediment accumulation in the waters of the state and comply with the terms of the General Permit.

- c. Each EPSC plan shall be fully and timely implemented and maintained.
- d. TDOT and/or its contractor(s) shall conduct inspections of EPSC measures and potentially impacted streams, at least twice per week, during any construction, and thereafter until the site is permanently stabilized.
- e. Prior to final approval of the Plan, TDOT shall establish additional Quality Assurance/Quality Control Teams, which shall operate independently of TDOT's project supervisors. These teams shall include individuals with environmental protection training or experience and who are approved by TDEC. These teams shall inspect all areas on which clearing, grubbing, excavation, grading, cutting, or filling has occurred on projects, including the potentially impacted streams, at least once per month until such areas are permanently stabilized, or as provided in approved interim provisions of the Plan. All inspection reports shall be provided simultaneously to TDEC and TDOT, or as provided in approved interim provisions of the Plan.
- f. TDOT and/or its contractor(s) shall install rain gauges in accordance with a plan approved by TDEC at all sites where clearing, grubbing, excavation, grading, cutting or filling is being actively performed, or exposed soil has not been permanently stabilized. TDOT and/or its representative(s) shall check each rain gauge after every rainfall event occurring on these sites and maintain detailed records of rainfall events including dates, amounts of rainfall, and the approximate duration or starting and ending times. Inspections of EPSC measures shall also be performed before anticipated rainfall events and during or within twenty-four hours after any rainfall event that exceeds 0.5 inches.
- g. TDOT and/or its contractor(s) shall make necessary maintenance and repair on EPSC measures within twenty-four hours after inspections, unless conditions make a particular activity impracticable (any such conditions shall be documented). TDOT and/or its contractors shall maintain records of inspections and corrective measures, including documenting photographs of representative items requiring correction and the corrective action taken for it.
- h. Any time that TDOT becomes aware that sedimentation is occurring in streams impacted by an ongoing project, TDOT shall evaluate the EPSC measures employed, repair or replace defective EPSC measures, and install, as applicable, additional or other EPSC measures with the goal of eliminating future sedimentation.

2.1.4.5. Storm Water Management Research Projects (for Road Construction Activity)

- a. TDOT and TDEC shall select eight road projects across the State, including two ongoing SR 840 projects to provide research data and information to be used in development of the State Wide Storm Water Management Plan. The goals of this research project shall include:
  - (1) Evaluation of the effectiveness of EPSC plans.
  - (2) Usefulness of turbidity and TSS data collection and evaluation of the levels of turbidity and/or TSS, if any, that should trigger evaluation and repair of EPSC measures.
  - (3) The specific research approach for these research projects will be developed by TDOT, in coordination with and subject to the approval of TDEC, with the goal of answering clearly defined questions.
- b. In addition, to evaluate the impact, if any, of road construction on the waters of the state, TDOT and TDEC shall select eight road projects across the State, including the one future SR 840 project, for research as follows:
  - (1) The goal of these research projects shall be to evaluate the effects of measured turbidity and TSS levels, and the effects of any visible construction sediment deposits, on stream biota, based on pre-construction and post-construction stream surveys.
  - (2) The sampling and surveys shall be conducted in accordance with the procedures outlined in Attachment C to this permit
  - (3) The projects selected will be reviewed prior to letting of the construction contract to ensure that the construction schedule and the biological data collection samples are compatible with the goals of the research.
  - (4) The specific research approach for these research projects will be developed by TDOT in coordination with and subject to the approval of TDEC, with the goal of answering clearly defined questions.
- c. Construction Contract Management
  - (1) Each TDOT contract entered into for a project in which a general or individual NPDES permit or an ARAP permit is required shall include a requirement that the Contractor's (Contractor is defined in §101.17 of TDOT's Standards of Construction for Road and Bridge Construction) project supervisor(s) successfully complete TDEC's Fundamentals of Erosion and Sediment Control, or the successor or equivalent course from other sources subject to TDEC approval, and such approval is not to be unreasonably withheld.
  - (2) Each TDOT contract entered into for a project for which a general or individual NPDES permit or an ARAP is required shall provide that the contractor shall cease work on part or all

- of a project when directed to do so by a TDOT project inspector or project supervisor because of inadequate EPSC measures.
- (3) TDOT shall file a Notice of Rule Making Hearing with the Secretary of State, commencing a rulemaking proceeding that will establish a system for contractor certification and contractor suspension relating to the ability of a contractor to bid on highway construction projects involving certain waters of the State (e.g., high quality waters, impaired waters). TDOT shall file the final rules in accordance with dates set forth in the Order.
  - (4) Each TDOT contract entered into for a project in which a general or individual permit is required shall include disincentives for environmental violations similar to those currently imposed by TDOT for late completion of a project.
- d. Education and Certification
- (1) TDOT shall provide for and fill two or more staff positions in its office that have expertise in and are involved in the design or review of EPSC plans. Minimum qualifications for these positions shall include a Bachelors level degree in engineering, soil science, hydrology, or geology or a related field and four years professional experience with prevention of soil erosion and sediment control. These people shall also have completed TDEC's Design of Vegetative and Structural measures for Erosion and Sediment Control course, or its successor or equivalent. These people shall also obtain the CPESC certification as soon as possible after they have obtained the required experience. The documentation of all such experience and certification shall be submitted to TDEC.
  - (2) TDOT project inspectors and project supervisors who are responsible for implementation and maintenance of EPSC plans shall successfully complete TDEC's Fundamentals of Erosion Prevention and Sediment Control course, or its successors or equivalent course from other sources subject to TDEC approval.

#### 2.1.5. Post Construction Storm Water Management

TDOT shall develop, implement and enforce a program to reduce pollutants in storm water from the post-construction facilities including roadways, rights-of-ways and appurtenants subject to storm water runoff. The program shall include at a minimum:

- a. Develop a menu of structural Best Management Practices (BMPs) which may be applied to new highways and/or used for existing highway retrofit for the purpose of reducing pollutants in storm water runoff. This menu shall include but is not limited to: catch basins, grass swales, grass filter strips, buffer zones, bio retention, sand filters, infiltration basins, porous pavement, extended detention, retention, and

wet ponds, constructed wetlands, storm receptors or similar devices. TDOT shall update its standard design and construction documents to reflect these structural BMPs. Highway design personnel shall be encouraged to use these BMPs where appropriate.

- b. Develop a menu of non-structural BMPs which may be applied to new highways and/or used for existing highway retrofit for the purpose of reducing pollutants in storm water runoff. These BMPs shall include, but are not limited to: road sweeping, litter control options (either TDOT effort or volunteer programs such as "Adopt a Highway"). Prepare a written document describing these BMPs and make this document available to maintenance and other TDOT personnel that have the authority to implement such BMPs.
- c. Inventory catch basins, roadway culverts, pipes and other storm water conveyance structures and coordinate this information with the GIS system.
- d. Inspect open ditch and drainage structures as part of TDOT's Maintenance Division Rating Program. At a minimum this inspection program should include 10% of the TDOT drainage system in each year. The inspections currently determine whether a drainage structure passes or fails when compared to a performance standard that ninety percent of the design cross-sectional area be open and free of blockage. The performance criteria should be expanded to also rate the structures on their potential for erosion and loss of sediment to streams.
- e. Select four mature highway sites, with the approval of TDEC, where BMPs can be implemented on a semi-permanent basis for research evaluation. The purpose of this research is to measure storm water runoff quality at a storm drain outfall before and after BMP implementation and determine effectiveness. Develop and submit to the division for approval a study plan for each site which shall include:
  - (1) A discussion of the basis for the selection of the site including its nature relative to typical highway design segments, its average daily traffic (ADT) and the percentage of non TDOT drainage contributing (see Appendix C of Part II of the TDOT MS4 permit application),
  - (2) A description of the BMP (either structural or non structural) to be implemented and evaluated,
  - (3) A description of the site including the drainage area, portion impervious, portion pervious, type surface cover, and slopes,
  - (4) List of pollutants for which analysis is to be made,
  - (5) Description of equipment to be used to record rainfall events, measure runoff volume, provide first flush discrete samples and storm duration flow composited samples of storm water. Also collect and analyze any large solids, trash and floatables in the runoff that is not captured by conventional water sampling equipment.

Prior to implementing the selected BMP, TDOT shall conduct sampling at each site during a minimum of three storm events to determine background levels of pollutants. A written report of the findings shall be prepared and submitted to TDEC. Based on the findings, TDOT, with the approval of TDEC, shall implement the selected BMP at the site.

Following implementation of the BMP, TDOT shall conduct sampling at each site during a minimum of three storm events to evaluate the effectiveness of the BMP. TDOT will prepare a written report comparing the before and after analytical data and evaluating the effectiveness of the BMPs and the feasibility of implementation of this BMP at applicable highway sites.

TDOT shall review design standards for storm drain inlets to promote the use of grate spacing that minimize the entry of trash, floatable and other debris into the storm drain system. Trash, floatable and other debris on the highways shall be handled by means other than flushing into storm drains. Were reduction in grate spacing would cause inadequate hydraulic performance, TDOT will pursue other management practices to minimize trash, floatable and large debris in storm runoff.

f. Highway Maintenance Activities

TDOT shall develop a comprehensive Right-of-Way Maintenance Manual that shall contain information explaining how routine highway maintenance can impact storm water quality and what measures should be taken to minimize these impacts. The following subjects are to be included at a minimum:

- (1) Road surface maintenance,
- (2) Landscaping (including flower beds),
- (3) Bridge repair,
- (4) Drainage system inspection and cleaning,
- (5) Right-of-way embankment stabilization,
- (6) Spraying of herbicides,
- (6) Vegetation control, cutting and removal, and
- (7) Treatment system maintenance

2.1.6. Pollution Prevention/Good Housekeeping for TDOT Facilities

This category of minimum control measures is designated to address TDOT's facilities (Refer to the inventory in Attachment D, below.) across Tennessee. All operations at these facilities with the potential for causing pollutants to enter storm water runoff are to be addressed, including, but not limited to, anti-icing, deicing and other chemical/oil storage, equipment maintenance

and repair, equipment washing, material storage (e.g., soils, sand, aggregate, asphalt, construction debris, clearing and grubbing debris), waste disposal practices, and use of floor drains.

The permit conditions applicable to this control measure are set forth in subsections 2.1.6.1 through 2.1.6.12 below, and the compliance schedule for implementing these conditions is established in Section 3 of this permit.

- 2.1.6.1. **Vehicle and Equipment Washing**  
TDOT will inventory its facilities to document vehicle-washing practices. A policy will be developed to assure that all vehicles and equipment are either washed off-site at a commercial facility, or on a covered, dedicated wash pad that collects all wastewater and transfers it to a sanitary sewer system or a wastewater collection system.
- 2.1.6.2. **Floor Drain Investigation**  
TDOT will inspect all buildings where equipment maintenance is performed and take necessary actions to assure that floor drains are sealed or connected to a sanitary sewer system.
- 2.1.6.3. **Facility Inventory and Notification**  
TDOT will inspect and inventory all TDOT owned and operated facilities. This inventory should be updated whenever a facility is added or closed.
- 2.1.6.4. **Storm Water Pollution Prevention Plan**  
For those TDOT facilities inventoried in Attachment D, TDOT will submit No Exposure Certification, where applicable. TDOT shall prepare a storm water pollution prevention plan (SWPPP) for each such facility that does not receive a No Exposure Certification. Such SWPPPs shall be prepared in accordance with good engineering practices and meet the content requirements set forth in Attachment D, below.
- 2.1.6.5. **Storm Water Monitoring**  
TDOT shall perform and document visual examinations and sampling of storm water discharges at all of its facilities, except for those facilities for which a No Exposure Certification has been received.
- 2.1.6.6. **Spill Prevention and Response Procedure**  
TDOT shall develop written Standard Operating Procedures (SOPs) addressing the prevention of and response to spills in areas where potential spills, which could contribute pollutants to storm water discharges, may occur. TDOT shall also ensure that TDOT personnel have appropriate resources available (i.e., equipment, materials, and/or contractors), and are trained in their use, to effectively respond to and promptly clean up any such spills that might occur. Descriptions of these procedures, resources, and training

programs shall be incorporated – either expressly or by reference – in each facility's SWPPP.

- 2.1.6.7. Facility Inspections for Waste Management and Housekeeping  
TDOT, or their consultant, shall perform annual inspections and audits of each garage and regional maintenance facility to evaluate their compliance with requirements for prevention of releases to the environment. TDOT's environmental division shall review these inspection/audit reports and implement actions to address any identified problems.
- 2.1.6.8. Standard Operating Procedures  
TDOT shall review the standard operating procedures (SOP) for its garages and regional maintenance facilities to assure that they do not conflict with the SWPP and that they address environmental concerns. Procedures to be addressed include washing, fueling, fluid changing, painting, proper handling, storage, recycling, disposal and accountability of fuels, lubricants, chemicals, hazardous materials, deicing materials, and wastes. The SOP shall be reviewed and updated annually.
- 2.1.6.9. Spill Control and Visual Inspection Program  
Included in the integrated SWPPP and implemented at all TDOT garages and regional maintenance facilities shall be a spill control and storm water visual inspection program. Vehicles, storage tanks, chemical or deicing material storage containers, piping, pumps, oil/water separators, and any equipment located at the facility shall be inspected at a minimum of once per quarter for malfunctions, fluid leaks, or improper operation. The inspection reports shall be maintained as attachments to the SWPP Plan.
- 2.1.6.10. Spill Kits  
All TDOT garages and regional maintenance facilities shall be provided with spill kits suitably equipped and located for dealing with the type of oils or other chemicals which have the potential to be spilled. Employees shall be notified as to the locations of these kits and instructed in their use.
- 2.1.6.11. Employee Training  
All TDOT employees at garages, regional maintenance facilities, or other facilities who are, or may be, involved in maintenance activities, fuel handling, chemical handling, or other activities identified in the Storm Water Pollution Prevention Plan and/or the Spill Prevention Control and Countermeasure Plan that could have impacts on storm water runoff quality shall be trained in storm water pollution prevention and spill response. The training shall include at a minimum the topics of good housekeeping, material management practices, spill response, and spill reporting. Where contractors are performing maintenance work on TDOT property, contractor employees that are involved in activities that could impact storm runoff should be required to

have this training. The training for TDOT employees shall be conducted at a minimum of annually.

2.1.7. Roadside Vegetation Management

TDOT shall develop a roadside vegetation management plan that limits the use of herbicides or clearing methods that lead to soil erosion. Herbicide use should be restricted to only those areas where vegetation control by other methods is not feasible and herbicide application should be avoided during periods when rainfall is predicted. All TDOT personnel should be properly trained and certified in the use of herbicides. Where contractors are using herbicides for vegetation control on TDOT right of ways (ROWs), their employees shall also be trained and certified in the use of herbicides. The rotary tillage that produces fine or “fluffy” soil is discouraged. Any areas so treated must have adequate erosion controls and such controls must be re-installed should the vegetation die.

**2.2. AREA-SPECIFIC SWMP REQUIREMENTS**

2.2.1. Water Quality Controls for Discharges to Impaired Water bodies.

The annual report submitted to the division must include a section describing how the SWMP will control the storm water discharge into streams impaired for siltation. This section must identify the measures and BMPs that will collectively control the discharge of the pollutants of concern. The measures should be presented in order of priority with respect to controlling the pollutants of concern.

2.2.2. Consistency with Total Maximum Daily Load (TMDL).

Where a TMDL has been approved for any water body into which TDOT discharges, TDOT must follow the procedure below and report on these activities in annual reports to the division:

- 2.2.2.1. Determine whether the approved TMDL is for a pollutant likely to be found in storm water discharges from your MS4.
- 2.2.2.2. Determine whether the TMDL includes a pollutant wasteload allocation (WLA), implementation recommendations, or other performance requirements specifically for storm water discharges from your MS4.
- 2.2.2.3. Determine whether the TMDL addresses a flow regime likely to occur during periods of storm water discharge.
- 2.2.2.4. After the determinations above have been made and if it is found that the MS4 must implement specific provisions of the TMDL, TDOT shall evaluate whether the implementation of existing storm water control measures is meeting the TMDL provisions, or if additional control measures are necessary.

- 2.2.2.5. TDOT shall document all control measures currently being implemented or planned to be implemented, including a schedule of implementation for all planned controls. The rationale (e.g., calculations, assessments, reports and/or other evidence) should be included, showing that TDOT will comply with the TMDL provisions. For control measures that are expected to be implemented and evaluated beyond the term of this permit, include a longer schedule of implementation as necessary to describe the control measure.
- 2.2.2.6. Describe a method to evaluate whether the storm water controls are adequate to meet the requirements of the TMDL.
- 2.2.2.7. If the evaluation shows that additional or modified controls are necessary, describe the type and schedule for the control additions/revisions.

## **2.3. RECEIVING WATER LIMITATIONS**

This SWMP shall reduce the discharge of pollutants to the Maximum Extent Practicable (MEP) and shall not cause or contribute to violations of State water quality standards of the receiving streams. If exceedance(s) of water quality objectives or water quality standards (collectively, WQS) persist notwithstanding implementation of the SWMP and other requirements of this permit, the permittee shall comply with the following procedure:

- 2.3.1. Upon a determination by either the permittee or the Division of Water Pollution Control that discharges are causing or contributing to an exceedance of an applicable WQS, the permittee shall promptly notify and thereafter submit a report to the division that describes BMPs that are currently being implemented and additional BMPs that will be implemented to prevent or reduce any pollutants that are causing or contributing to the exceedance of WQSs. The report may be incorporated in the annual update to the SWMP unless the division directs an earlier submittal. The report shall include an implementation schedule. The division may require modifications to the report.
- 2.3.2. Submit any modifications to the report required by the division within 30 days of notification.
- 2.3.3. Within 30 days following approval of the report described above by the division, the permittee shall revise the SWMP and monitoring program to incorporate the approved modified BMPs that have been and will be implemented, implementation schedule, and any additional monitoring required.
- 2.3.4. Implement the revised SWMP and monitoring program in accordance with the approved schedule. So long as the permittee has complied with the procedures set forth above and is implementing the revised SWMP, the permittee does not have to repeat the same procedure where continuing or

recurring exceedances of the same water quality standards unless directed by the division to develop additional BMPs.

## **2.4. ROLES AND RESPONSIBILITIES OF PERMITTEES**

The storm water management program, together with any attached interagency agreements or interagency agreements developed subsequent to the effective date of the permit, shall clearly identify the roles and responsibilities of each permittee. Following the effective date of the permit, interagency agreements developed and implemented must be included in the Annual Report that covers the permit year in which the agreement became effective.

## **2.5. LEGAL AUTHORITY**

To the extent allowed by law, each permittee shall ensure legal authority to control discharges to and from those portions of the MS4 over which it has jurisdiction. This legal authority may be a combination of statute, ordinance, permit, contract, order or interjurisdictional agreements between permittees with adequate existing legal authority to accomplish items 2.5.1-2.5.6 below:

- 2.5.1. To control the contribution of pollutants to the MS4 by storm water discharges associated with industrial activity and the quality of storm water discharged from sites of industrial activity;
- 2.5.2. To prohibit illicit discharges to the MS4;
- 2.5.3. To control the discharge of spills and the dumping or disposal of materials other than storm water (e.g. industrial and commercial wastes, trash, used motor vehicle fluids, deicing materials, leaf litter, grass clippings, animal wastes, etc.) into the MS4;
- 2.5.4. To control through interagency or inter-jurisdictional agreements between TDOT and related MS4 permittees, if any, the contribution of pollutants from one portion of the MS4 to another;
- 2.5.5. To require compliance with conditions in ordinances, permits, contracts or orders; and
- 2.5.6. To carry out all inspection, surveillance and monitoring procedures necessary to determine compliance with permit conditions.

## **2.6. STORM WATER MANAGEMENT PROGRAM RESOURCES**

TDOT shall provide adequate finances to implement the agency's activities under the Storm Water Management Program (SWMP). TDOT shall also have a source of funding for implementing all other requirements included within this NPDES storm water permit.

## **2.7. SWMP REVIEW AND MODIFICATION**

2.7.1. Program Review

TDOT shall participate in an annual review of the current SWMP in conjunction with preparation of the Annual Report required under Part IV of this permit.

2.7.2. Program Modification

TDOT may modify the SWMP during the life of the permit in accordance with the following procedures:

- a. Modifications that add, but neither subtract nor replace, components, controls, or requirements to the approved SWMP may be made by the permittee at any time. A description of the modification shall be included in the subsequent Annual Report.
- b. Modifications that replace an ineffective or infeasible BMP, which is specifically identified in the SWMP along with an alternate BMP, may be made by the permittee at any time. A description of the replacement BMP shall be included in the subsequent Annual Report along with the following information:
  - (1) an analysis of why the former schedule was ineffective or infeasible;
  - (2) expectations on the effectiveness of the replacement schedule; and
  - (3) an analysis, if applicable, of why the replacement schedule will ensure the optimization of equipment use.
- c. Modifications that subtract components, controls, or requirements of the SWMP may not be made by the permittee unless it can be clearly demonstrated that with the elimination of this component, the SWMP will continue to achieve a reduction in pollutants to the MEP and shall not cause or contribute to violations of State water quality standards in the receiving stream. In the case where this type of modification is appropriate, the permittee may make the required modification and shall include in the subsequent Annual Report a description of the component which has been eliminated along with the following information:
  - (1) an analysis of why the component was ineffective or infeasible; and
  - (2) a detailed explanation of why, with the elimination of this component, the SWMP will continue to achieve a reduction in pollutants to the MEP and shall not cause or contribute to violations of State water quality standards in the receiving stream.
- d. Modifications included in the Annual Report shall be signed in accordance with part 6.11 below by all permittees affected by that modification, and shall include a certification that all affected permittees were given an opportunity to comment on proposed changes.

2.7.3. Transfer of Ownership, Operational Authority, or Responsibility for Storm Water Management Program Implementation

The permittee shall implement the SWMP on all new areas added to their portion of the municipal separate storm sewer system (or for which they become responsible for implementation of storm water quality controls) as expeditiously as practicable. Implementation of the program in any new area shall consider the plans in the SWMP of the previous MS4 ownership.

### 3. SCHEDULE FOR COMPLIANCE

In order to comply with the conditions of this permit, the elements of the storm water management program shall be completed in accordance with the schedule presented in the following tables:

#### Public Education and Outreach Elements Schedule

Management Program Element	Measurable Goal	Scheduled Completion
(a) <u>Programs for the Public</u>		
Enhanced Utilization of TDOTs Existing Website	Add information to public education environmental document regarding TDOTs approach to storm water management.	First year of permit
Media Campaign in cooperation with other MS4s to Heighten Public Awareness of Storm Water Pollution Prevention	Conduct meetings with other MS4s to select media to be used, prepare materials, presentations, etc. and initiate distribution.	First year of permit
Extend/Enhance Use of Existing Environmental /Conservation Resources	Provide a significant increase in the miles of highways covered under the program.	First year of permit. Report in Annual Report
Enhance Promotion of Pollution Prevention Programs	Continue with and increase number of radio announcements regarding Keep Tennessee Clean and integrate a storm water related message	First year of permit
TDOT Litter Grants Fund Program	Continue to establish and work with community-based litter collection/ prevention programs. Review program and seek opportunities to highlight storm water pollution prevention benefits.	Fifth year of permit
Monitor and Emulate the Success of Other TDOT Programs	Develop a report on what other states are doing and what has been successful. Select measures and begin implementation	Report by end of second year of permit
(b) <u>Programs for TDOT Contractors</u>		
Construction Contractor Storm Water Management Training Course.	Development written materials that are equal to or equivalent to TDEC,s Fundamentals of Erosion and Sediment Control, presentation materials, and a mechanism for assuring that appropriate contractor personnel must attend.	First year of permit
Develop a Course Schedule.	Provide a course schedule with a minimum of quarterly presentation times and conduct training.	First year of permit
(c) <u>Programs for TDOT Employees</u>		
Construction Project Inspectors/ Project Supervisors Storm Water Management Training	Develop written course materials that are equal to or equivalent to TDEC's Design of Vegetative and Structural Measures for Erosion and Sediment Control, develop	First year of permit

Course	presentation materials, and train instructors to present this course. Develop a schedule for presentation of this course and conduct annual training	
Highway Maintenance Personnel Storm Water Management Training Course	Develop written course materials that are equal to or equivalent to TDEC's Fundamentals of Erosion and Sediment Control, develop presentation materials, and train instructors to present this course to TDOT maintenance personnel. Develop a schedule for presentation of this course and conduct annual training	First year of permit

### Public Involvement and Participation Elements Schedule

Management Program Element	Measurable Goal	Scheduled Completion
Enhanced Utilization of Anti-Litter Programs	Expand Adopt a Highway program to cover 45% of highways in urban areas Review program for any opportunities for improved storm water pollution prevention awareness	First year of permit
Coordination of Interagency Overlap for MS4 Programs	Develop mechanism to facilitate coordination with Phase I and Phase II MS4s Develop appropriate coordination agreements	First year of permit First year of permit
Develop Mechanisms for Public Input Regarding Implementation of Control Measures	Select methods to be used for public involvement.  Initiate public involvement program	First year of permit First year of permit

### Illicit Discharge Detection and Elimination Elements Schedule

Management Program Element	Measurable Goal	Scheduled Completion
Develop Storm Sewer System Maps	Develop storm sewer system mapping capabilities that allow determination of outfalls, area of TDOT right-of-way drained, and receiving streams throughout the state.	Second year of permit
Illicit Discharge Detection Programs	Develop a program to detect and eliminate significant soil tracking onto highways  Develop a program to detect and eliminate non-storm water entering TDOT ROW or storm sewer systems	Second year of permit Second year of permit
Interagency Coordination for Spill Response/Cleanup	Annually review and modify procedures as necessary to protect streams from runoff.	Second year of permit

Intentional/ Non-Intentional Disposal of Materials from Vehicles	Initiate task force Develop program Implement program	Second year of permit
Training of TDOT Field Personnel	Develop education and training program for TDOT field personnel regarding identification and reporting of illicit discharges Implement program	Second year of permit

### Construction Site Storm Water Runoff Control Elements Schedule

Management Program Element	Measurable Goal	Scheduled Completion
Develop Statewide Water Quality Management Plan	Form Working Group Select outside expert Implement process for public review Hold public meetings Complete and submit the plan	2 Q 1 <sup>st</sup> Year 3 Q 1 <sup>st</sup> Year 4 Q 1 <sup>st</sup> Year 4 Q 1 <sup>st</sup> Year 4 Q 1 <sup>st</sup> Year
Interim Measures Pending Approval of the Plan	Establish Quality Assurance/Quality Control Teams Select eight (8) road projects for research data  Fill staff positions for reviewers of EPSC plans	First year of permit  First year of permit  First year of permit
Update Standard Design and Construction Documents: Roadway Design Guidelines	Data Collection – Conduct interviews with construction field staff  Implement interim measure – Advise roadway design managers of construction practices and preferences  Complete draft erosion control and sedimentation control BMP's  Formal implementation of BMP's	First year of permit  First year of permit  First year of permit  First year of permit
Update Standard Drawings	Data collection – conduct interviews with construction field staff  Complete draft erosion and sediment control drawings  Formal implementation of BMPs	First year  First year  Second year
Update Standard Construction Specifications Update Standard Notes	Issue revised specification document.  Issue Instructional Bulletin to holders of the Design Guideline Manual	Second year  Second year
Coordinate Erosion Control Documents	Establish task force to coordinate erosion control documents between TDEC, TDOT, and others	First year of permit

Enhance Existing QA/QC Plan Development Process: Update Plans Distribution Schedule	Issue memorandum to design managers concerning updated schedule	First year
	Select engineering firm(s) to review erosion control plans	First year
Retain independent Firms to Develop SWPPP	Select engineering firm(s) for review of erosion control plans	First year
Provide independent review of erosion control plans Train In-house Quality Assurance Staff	Complete Training	Second year
Conduct Erosion Prevention and Sediment Control Training	Complete in-house staff training (Design, Construction, Bridge, and Maintenance) Complete training of Consultant Engineering Firms Working for TDOT Complete training of contractors	Second year
Training and Certification Program	Evaluate specialized training and certification program for contractors	Second year

### **Post Construction Storm Water Management in New Development and Redevelopment Elements Schedule**

<b>Management Program Element</b>	<b>Measurable Goal</b>	<b>Scheduled Completion</b>
Develop Menu of BMPs	Develop structural BMPs that can be applied to new highways or upgrades of existing highways	First year
	Develop non structural BMPs that can be applied to new highways or upgrades of existing highways	First year
Inventory of Storm Drainage Facilities	Inventory catch basins, culverts and pipes and add to GIS system	Beginning in second year and following opening of new highway segments
Random Ditch and Drainage inspection	Annually conduct random inspections of drainage systems in 10% of all statewide highway segments	Annually
Litter Removal	Continue litter removal program	Annually
Update Standard Design and Construction Documents	Complete update Include review of design standards for storm drain inlets	First year
Comprehensive Maintenance manual	Develop maintenance manual integrating existing SOPs	First year
	Include evaluation of sweeping schedules	First year
	Address vegetation control, ditch maintenance, and flower plots	First year

Storm Water Monitoring	Select four mature highway sites and a pilot BMP program, provide basis for selection and submit study plan.	First year
	Install flow monitoring, rain measurement and sampling equipment	First year
	Sample three storm events and submit report	Second year
	Install/implement selected BMP(s) at sites	Third year
	Sample three storm events and submit report	Third year
	Provide a summary report of findings and recommendations	Fourth year
Mechanical and manual sweeping	Review and enhance the sweeping program through increased highway areas and/or increased frequency	First year
Catch Basin Cleaning	Review catch basin cleaning program for increased frequency	First year
	Track catch basin cleaning on GIS	First year

## Pollution Prevention/Good Housekeeping at TDOT Facilities Elements Schedule

Management Program Element	Measurable Goal	Scheduled Completion From effective date of permit
Facility Inventory and Notification	<p>Inspect, inventory, and submit NOI or No Exposure Certification for existing TDOT facilities:</p> <ol style="list-style-type: none"> <li>1. Region HQ Facilities (4)</li> <li>2. District HQ Facilities (18)</li> <li>3. 25% of TDOT County Garages (20 of Higher Priority)</li> <li>4. 75 % of TDOT County Garages (60 of Lower Priority)</li> <li>5. Airport Hanger (1)</li> <li>6. Truck Weigh Stations (9)</li> <li>7. Welcome Centers (13)</li> <li>8. Rest Areas (20)</li> <li>9. Floating Maintenance Facilities (?)</li> <li>10. Floating Salt Storage Facilities (22)</li> <li>11. Floating HELP Truck Facilities (1)</li> <li>12. Other Existing TDOT Facilities</li> </ol> <p>Submit NOI or No Exposure Certification for New TDOT Facilities</p>	<p>90 Days</p> <p>90 Days</p> <p>180 Days</p> <p>12 Months</p> <p>180 Days</p> <p>180 Days</p> <p>180 Days</p> <p>180 Days</p> <p>180 Days</p> <p>180 Days</p> <p>180 Days</p> <p>180 Days</p> <p>12 Months</p> <p>At least 5 days prior to commencement of activities at the site</p>
Vehicle and Equipment Washing	Insure all washing is off-site or on dedicated pad draining to sewer	90 Days
Facility Floor Drains	Insure that all are closed or tied to sanitary sewer	90 Days
Storm Water Pollution Prevention Plans	<p>Complete SWPPPs for existing TDOT O/O Facilities:</p> <ol style="list-style-type: none"> <li>1. Region Facilities (4)</li> <li>2. District Facilities (18)</li> <li>3. 25% of TDOT County Facilities (20 of Higher Priority)</li> <li>4. Rest of TDOT County Facilities (Lower Priority)</li> <li>5. Airport Hanger (1)</li> <li>6. Weigh Stations (9)</li> <li>7. Welcome Centers (13)</li> <li>8. Rest Areas (20)</li> <li>9. Floating Maintenance Facilities (?)</li> <li>10. Floating Salt Storage Areas (22)</li> <li>11. Floating HELP Truck Facilities (1)</li> </ol>	<p>90 Days</p> <p>180 Days</p> <p>12 Months</p> <p>18 Months</p> <p>12 Months</p> <p>12 Months</p> <p>12 Months</p> <p>12 Months</p> <p>12 Months</p> <p>12 Months</p>

	12. Other Existing TDOT Facilities	12 Months
	Complete SWPPPs for New TDOT Facilities	18 Months
		At least 5 days prior to commencement of activities at site
Facility Inspections for Waste Management and Housekeeping	<p>Vehicle maintenance: New parts washers to be installed in all facilities that perform maintenance</p> <p>All facility drawings will be updated to accurately reflect all plumbing connections</p> <p>Spill kits provided</p> <p>Training: Conduct employee training in the management of potentially polluting materials and good housekeeping practices</p>	<p>First year</p> <p>Second year</p> <p>Second year</p> <p>Annually</p>
Standard Operating Procedures (SOP)	Review and update the SOPs for TDOT facilities to address pollution prevention	Within 90 days and by July 1 of each year thereafter
Spill Control and Storm Water Pollution Prevention Visual Inspection Program	Implement inspection program	First year

#### 4. MONITORING REQUIREMENTS

This permit requires monitoring of storm water discharges as summarized in the attached table:

Management Program Element	Monitoring Requirement	Schedule
Illicit Discharge Detection and Elimination	Monitoring required as needed to discover source of illicit discharges detected during dry weather (see Attachment B)	Annually as necessary to determine source of illicit discharge
Construction Site Storm Water Runoff Control	<p>Installation and monitoring of rain gauges at construction sites</p> <p>For eight selected road construction projects and adjacent impacted streams, monitor water quality, habitat, stream morphology, benthic macroinvertebrates and fish in accordance with a TDOT study plan approved by TDEC</p>	<p>To be installed and operated wherever clearing, grubbing, excavation, grading, cutting or filling is occurring</p> <p>April 1 through June 30 for macroinvertebrates April 1 through September 30 for fish</p>
Post Construction Storm Water Management for New Development and Redevelopment	For four selected mature highway sites conduct storm water runoff monitoring before and after installation/ implementation of BMPs in accordance with a TDOT study plan approved by TDEC	<p>Pre BMP monitoring complete by end of first year</p> <p>Post BMP monitoring complete by end of 2<sup>nd</sup> year</p>
Pollution Prevention/ Good Housekeeping for TDOT Operations	<p>TDOT to initiate quarterly visual monitoring of storm water discharges from TDOT O/O Facilities:</p> <ol style="list-style-type: none"> <li>1. Region Facilities (4)</li> <li>2. District Facilities (18)</li> <li>3. 25% of TDOT County Facilities (20 of Higher Priority)</li> <li>4. Rest of TDOT County Facilities (Lower Priority)</li> <li>5. Airport Hanger (1)</li> <li>6. Weigh Stations (9)</li> <li>7. Welcome Centers (13)</li> <li>8. Rest Areas (20)</li> <li>9. Floating Maintenance Facilities (1)</li> <li>10. Floating Salt Storage Areas (22)</li> <li>11. Floating HELP Truck Facilities (1)</li> <li>12. Other Existing TDOT Facilities</li> </ol> <p>TDOT will perform storm water sampling and analysis and reporting in accordance with approved State-wide Facility Storm Water Monitoring Plan</p>	<p>90 days</p> <p>180 Days</p> <p>12 months</p> <p>18 months</p> <p>12 months</p> <p>12 months</p> <p>12 months</p> <p>12 months</p> <p>12 months</p> <p>12 months</p> <p>12 months</p> <p>18 months</p> <p>Per Plan</p>

## 5. ANNUAL REPORT

- a. Preparation of the annual report shall include the following
  - (1) TDOT shall prepare an annual system-wide report to be submitted by no later than 6 months following the period to be covered by the report. The Annual Report shall cover the 12 month period beginning on the effective date of this permit and annually thereafter.
  - (2) The permittee shall sign and certify the Annual Report in accordance with subpart 6.11.1.d of this permit, and shall include a statement or resolution that the permittee's governing body or agency (or delegated representative) has reviewed or has been appraised of the content of the Annual Report.
- b. The following items describe in more detail the specific requirements for the Annual Report.
  - (1) Provide a list of contacts and responsible parties (e.g.: agency, name, phone number) who had input to and are responsible for the preparation of the Annual Report.
  - (2) Provide an overall evaluation of the Storm Water Management Program including: Objective of Program; Major Findings (e.g.: water quality improvements or degradation); Major Accomplishments; Overall Program Strengths / Weaknesses; and Future Direction of Program.
  - (3) Provide a Summary Table of Storm Water Management Program Elements.
    - i. A Summary Table of appropriate SWMP activities for each permittee shall be provided. The purpose of the Summary Table is to document in a concise form the program activities and permittees' compliance status with quantifiable permit requirements. Program elements that are administrative (e.g.: planning procedures, program development and pilot studies) are inappropriate for the summary table and shall be discussed in the narrative section of the Annual Report. The following are examples of SWMP activities to be included in the Summary Table:
      - (1) Structural Controls- maintenance and/or inspection activities of existing structural controls
      - (2) Roadway Maintenance- Street sweeping, litter control activities, and maintenance on storm water structures & roadside ditches
      - (3) Public Education- programs undertaken and progress made

- (4) Pesticide, Herbicide, and Fertilizer Application – certification training and public education
  - (5) Illicit non-storm water discharges into TDOT system and reports to TDEC,
  - (7) Construction- training of employees, contractors, and others
  - (8) BMPs implemented- description of best management practices implemented and impacts.
- ii. The Summary Table shall indicate all SWMP activities and accomplishments. The information shall include:
- (1) Activity description;
  - (2) Number of activities (with frequency) that were scheduled for implementation and/or accomplishment in program element discussion (i.e., once/6 months, 100%/5 years, 5 sites monitored once/year, all sites inspected/permit term). Enter "Not Applicable" (N/A) if no specific schedule was specified;
  - (3) Status of schedule for year ("yes" for schedule was adhered to, or "no" for schedule was not adhered to);
  - (4) Number of activities which were accomplished; and
  - (5) The availability of documentation (i.e., inspection reports) for those activities, which were accomplished, and comments describing the reason(s) for any non-compliance.
- (4) The Annual Report shall contain a Narrative Report that succinctly discusses the SWMP Elements, which were not included within the SWMP Summary Table. Those SWMP elements required to be developed under Parts 3 and 4 of the permit shall be discussed within this section of the Annual Report following development.
- i. The permittees shall include a brief discussion of the following applicable SWMP Elements:
- Structural Controls Maintenance
  - Development Planning Procedures
  - Roadway Maintenance
  - Regional Maintenance Facilities
  - Pesticides, Herbicides, and Fertilizers
  - Illicits Discovered by TDOT and Investigation by TDEC
  - Field Screening
  - Investigation of illicit discharges where reasonable potential exists

- Spill Response
- Public Reporting of Illicit Discharges
- Oils and Hazardous Waste Control
- Access Permit Property Inspection
- Monitoring programs
- Construction Planning Procedures
- Structural and non-structural BMPs
- Prioritizing of site inspections
- Educational activities

ii. The format for the Narrative Report section of the Annual Report shall be a brief discussion of the SWMP element. It may be in table form or a combination of a table and corresponding narrative to facilitate concise conveyance of the information. The aspects of TDOT's activities concerning a SWMP Element shall be succinctly discussed in the section of the Narrative Report dedicated to that element. The discussion shall include the following:

- (1) Objective of SWMP Element;
- (2) SWMP Element activities completed and those in progress;
- (3) General discussion of element. Explanation of all Element activity deficiencies (e.g.: activities described in the program that have not been fully implemented or completed). Results of activities shall be summarized and discussed (e.g.: maintenance caused by inspection, pollutants detected by monitoring, investigations as a result of dry and wet weather screening, education activities participation);
- (4) Status of SWMP Element with compliance, implementation, and augmentation schedules in Part III of the permit;
- (5) SWMP Element strengths and weaknesses;
- (6) Assessment of controls; including assessment of accuracy in recording and following up on investigations, in recording results of follow-up; with a view toward setting up the system to report by program and at least by watershed, if not by outfall;
- (7) Discussion of Element revisions that are summarized elsewhere in the Annual Report.

(5) The Annual Report shall contain a Monitoring Section which discusses the progress and results of the monitoring programs required under Part 4 above of the permit. The Monitoring

Section of the Annual Report shall include a summary of the monitoring program developed and implemented under the permit. The details to be discussed include:

- i. an explanation and rationale for the type of ambient monitoring program the permittee(s) conducted during the reporting period;
  - ii. Summary chart of the data from any monitoring completed;
  - iii. Discussion of any results or conclusions derived from the monitoring completed;
  - iv. Discussion of monitoring program revisions that are summarized elsewhere in the Annual Report.
- (6) Provide a summary of the SWMP and modifications in the monitoring program made during the permit year.
- (7) List and discuss any changes that the permittee(s) is expected to make to the storm water management programs for the year following the report year.
- (8) Provide a fiscal analysis for each permittee's program implementation, both for the past calendar year and the next. The analysis shall indicate budgets and funding sources.
- i. The following information shall be included as Appendices within the Annual Report:
  - ii. Analytical data collected from the monitoring program;
  - iii. Results of illicit connections screening or dry weather screening; and
  - iv. Any other data specifically requested by the division to substantiate statements and conclusions reached in the Annual Reports.

#### **5.1. CERTIFICATION AND SIGNATURE REPORTS**

All reports required by the permit and other information requested by the Director shall be signed and certified in accordance with part 6.11 below of the permit.

#### **5.2. TIME AND PLACE OF REPORT SUBMITTAL**

- a. As required by part 4, monitoring results obtained during each annual reporting period beginning on the effective date of this permit and annually thereafter shall be submitted on Discharge Monitoring Report Form(s) in the Annual Report for year five of the permit. A separate Discharge Monitoring Report Form is required for each event monitored.
- b. Signed copies of the Annual Report required and all other reports required herein, shall be submitted to:

Division of Water Pollution Control  
Attention: Compliance Review  
L & C Annex, 6th Floor

401 Church Street  
Nashville, Tennessee 37243-1534

**5.3. RETENTION OF RECORDS**

The permittee shall retain the latest version of the Storm Water Management Program developed in accordance with Part 3 of this permit for at least three years after the expiration date of this permit. The permittees shall retain all records of all monitoring information, copies of all reports required by this permit, and records of all other data required by or used to demonstrate compliance with this permit, until at least three years after the expiration date of this permit. This period may be explicitly modified by alternative provisions of this permit or extended by request of the Director at any time.

## **6. STANDARD PERMIT CONDITIONS**

### **6.1. DUTY TO COMPLY**

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of applicable State and Federal laws and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

### **6.2. DUTY TO REAPPLY**

The permittee is not authorized to discharge after the expiration date of this permit. If the permittee wishes to continue discharges after the expiration date, the permittee must reapply, with necessary information and forms, for reissuance of the permit, at least 180 days prior to the expiration date.

### **6.3. NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE**

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

### **6.4. DUTY TO MITIGATE**

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit, which has a reasonable likelihood of adversely affecting human health or the environment.

### **6.5. PROPER OPERATION AND MAINTENANCE**

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

### **6.6. PERMIT ACTIONS**

This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

### **6.7. PROPERTY RIGHTS**

This permit does not convey any property rights of any sort in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State, or local laws or regulations.

**6.8. DUTY TO PROVIDE INFORMATION**

The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish to the Director upon request, copies of records required to be kept by this permit.

**6.9. INSPECTION AND ENTRY**

The permittee shall allow the Director, or an authorized representative of the EPA, including a contractor acting as a representative of the EPA Administrator, upon presentation of credentials and other documents as may be required by law, to:

- a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by State law or the Clean Water Act, any substances or parameters at any location.

**6.10. MONITORING AND RECORDS**

- a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
- b. The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time.
- c. Records of monitoring information shall include:
  - (1) The date, place, and time of sampling or measurements;
  - (2) The individual(s) who performed the sampling or measurements;
  - (3) The date(s) analyses were performed;
  - (4) The individual(s) who performed the analyses;
  - (5) The analytical techniques or methods used; and
  - (6) The results of such analyses.
- d. Monitoring results must be conducted according to test procedures approved under 40 CFR part 136, unless other test procedures have been specified in the permit.
- e. The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method

required to be maintained under this permit shall, upon conviction, be punished by fines and imprisonment described in Section 309 of the Clean Water Act.

#### **6.11. SIGNATORY REQUIREMENTS**

- a. All applications, reports, or information submitted to the Director shall be signed and certified.
  - (1) Applications  
All permit applications shall be signed (for a municipality, State, Federal, or other public agency) by either a principal executive officer or ranking elected official.
  - (2) Reports and other information  
All reports required by this permit, and other information requested by the Director shall be signed by a person described in sub-item a of this section, or by a duly authorized representative of that person. A person is a duly authorized representative only if:
    - i. The authorization is made in writing by a person described in sub item a of this section;
    - ii. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of director or assistant director, manager or superintendent, or position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and
    - iii. The written authorization is submitted to the Director. If an authorization is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of sub-item b of this section must be submitted to the Director prior to or together with any reports, information, or applications to be signed by an authorized representative.
  - (4) Certification  
Any person signing a document shall make the following certification:

*I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who*

*manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.*

- b. The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

#### **6.12. SEVERABILITY**

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

#### **6.13. LIABILITIES**

##### **6.13.1. Civil and Criminal Liability**

Nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance. Notwithstanding this permit, the permittee shall remain liable for any damages sustained by the State of Tennessee, including but not limited to fish kills and losses of aquatic life and/or wildlife, as a result of the discharge of wastewater to any surface or subsurface waters. Additionally, notwithstanding this permit, it shall be the responsibility of the permittee to conduct its wastewater treatment and/or discharge activities in a manner such that public or private nuisances or health hazards will not be created.

##### **6.13.2. Liability Under State Law**

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or the Federal Water Pollution Control Act, as amended.

## **7. PERMIT MODIFICATION**

### **7.1. MODIFICATION OF THE PERMIT**

The permit may be reopened and modified during the life of the permit to:

- a. Address impacts on receiving water quality caused, or contributed to, by discharges from the MS4;
- b. Address changes in State or Federal statutory or regulatory requirements;
- c. Include the addition of a new permittee who is the owner or operator of a portion of the Municipal Separate Storm Sewer System; or
- d. Include other modifications deemed necessary by the Director to comply with the goals and requirements of the Clean Water Act. All modifications to the permit will be made in accordance with 40 CFR 122.62, 122.63, and 124.5 and applicable State regulations.

### **7.2. TERMINATION OF COVERAGE FOR A SINGLE PERMITTEE**

Permit coverage may be terminated, in accordance with the provisions of 40 CFR 122.64 and 124.5, for a single permittee without terminating coverage for other permittees.

### **7.3. MODIFICATION OF STORM WATER MANAGEMENT PROGRAMS (SWMPS)**

Only those portions of the Storm Water Management Programs specifically required as permit conditions shall be subject to the modification requirements of 40 CFR 124.5. Replacement of an ineffective or infeasible BMP implementing a required component of the Storm Water Management Program with an alternate BMP expected to achieve the goals of the ineffective or infeasible BMP shall be considered minor modifications to the Storm Water Management Program and not modifications to the permit. (See also Part III(H)(2))

### **7.4. CHANGES IN MONITORED OUTFALLS**

This permit is issued on a system-wide basis in accordance with CWA §402(p)(3)(B)(i) and authorizes discharges from all portions of the municipal separate storm sewer system. Since all outfalls are authorized, changes in monitoring outfalls, if any, shall be considered minor modifications to the monitoring program and not modifications to the permit. (See also Part VI(A)(2)(g)).

## **ATTACHEMENT A DEFINITIONS AND ACRONYMS**

All definitions contained in Section 502 of the Act and [40 CFR §122](#) shall apply to this permit and are incorporated herein by reference. For convenience, simplified explanations of some regulatory/statutory definitions have been provided, but in the event of a conflict, the definition found in the Statute or Regulation takes precedence.

*Analytical monitoring* refers to monitoring of waterbodies (streams, ponds, lakes, etc.) or of storm water, according to 40 CFR 136 “Guidelines Establishing Test Procedures for the Analysis of Pollutants,” or to state- or federally established protocols for biomonitoring or stream bioassessments.

*Aquatic Resource Alternation Permit (ARAP)* means a permit issued by the Tennessee Department of Environment and Conservation, Division of Water Pollution Control for the purpose of allowing temporary and conditional disturbance to a stream bank or stream bed.

*Best Management Practices (BMPs)* means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the state. BMPs also include treatment requirements, operating procedures, and practices to control runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. BMPs may be structural or non-structural in form.

*Buffer* [See below under “[water quality buffer](#).”]

*CFR* is an acronym for Code of Federal Regulations. The environmental regulations are found at Title 40 of the CFR and the NPDES rules for storm water at 40 CFR Part 122.

*Co-permittee* means a permittee to an NPDES permit that is only responsible for permit conditions relating to the discharge for which it is operator.

*Control Measure* as used in this permit, refers to any Best Management Practice or other method used to prevent or reduce the discharge of pollutants to waters of the state.

*CPESC* mean a Certified Professional in Erosion and Sediment Control as certified by the International Erosion Control Association and the Soil and Water Conservation Society.

*CWA or The Act* means [Clean Water Act](#) (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) Pub.L.92-500, as amended Pub.L.95-217, Pub.L.95-576, Pub.L.96-483 and Pub.L.97-117, 33 U.S.C.1251 et seq.

*Director* means the director of the Tennessee Division of Water Pollution Control, or an authorized representative.

*Discharge*, when used without a qualifier, refers to “discharge of a pollutant ” as defined at [40 CFR §122.2](#).

*Division* means [the Tennessee Division of Water Pollution Control](#).

*Endangered Species Act (ESA)* means the Federal Endangered Species Act of 1973 to provide for the conservation of endangered and threatened species of fish, wildlife, and plants and for other purposes.

*EPSC* is an acronym for Erosion Prevention and Sediment Control

*General Permit* refers type a type of permit written for an entire class of activities and/or permittees. As opposed to an individual permit that is written specifically for a single discharger, the conditions of a general permit are the same, or are very similar, for all permittees subject to the permit. The General permits referred to in this Individual MS4 permit are the Tennessee Storm Water multi-Sector General Permit for Industrial Activity and the Tennessee General Permit No. TNR10-0000 Storm water Discharges from Construction Activities.

*High Quality Waters* are surface waters of the State of Tennessee that satisfy characteristics of high quality waters as listed in [Rule 1200-4-3-.06](#) of the official compilation - rules and regulations of the State of Tennessee. Characteristics include waters designated by the Water Quality Control Board as Outstanding National Resource Waters (ONRW); waters that provide habitat for ecologically significant populations of certain aquatic or semi-aquatic plants or animals; waters that provide specialized recreational opportunities; waters that possess outstanding scenic or geologic values; or waters where existing conditions are better than water quality standards. High quality waters are sometimes referred to as Tier II or Tier III (ONRW) waters.

*Hot spot* means an area where land use or activities generate highly contaminated runoff, with concentrations of pollutants in excess of those typically found in storm water. Examples might include operations producing concrete or asphalt, auto repair shops, auto supply shops, large commercial parking areas, restaurants.

*Illicit Connection* means any man-made conveyance connecting an illicit discharge directly to a municipal separate storm sewer.

*Illicit Discharge* is defined at [40 CFR §122.26\(b\)\(2\)](#) and refers to any discharge to a municipal separate storm sewer that is not entirely composed of storm water, except discharges authorized under an NPDES permit (other than the NPDES

permit for discharges from the MS4) and discharges resulting from fire fighting activities.

*Impaired Waters* means any segment of surface waters that has been identified by the division as failing to support classified uses. The division periodically compiles a list of such waters known as the 303(d) List. The division will notify applicants and permittees if there discharge is into, or is affecting, impaired waters.

*Load Allocation* (LA): The portion of a receiving water's loading capacity that is attributed either to one of its existing or future nonpoint sources of pollution or to natural background ([40 CFR §130.2\(g\)](#)).

*Margin of Safety* (MOS): The "MOS" accounts for uncertainty in the loading calculation. The MOS may not be the same for different waterbodies due to differences in the availability and strength of data used in the calculations.

*MEP* is an acronym for "Maximum Extent Practicable," the technology-based discharge standard for Municipal Separate Storm Sewer Systems to reduce pollutants in storm water discharges that was established by CWA §402(p). A discussion of MEP as it applies to small MS4s is found at [40 CFR §122.34](#).

*Monitoring* refers to tracking or measuring activities, progress, results, etc.; and can refer to non-analytical monitoring for pollutants by means other than 40 CFR 136 (and other than state- or federally established protocols in the case of biological monitoring and assessments), such as visually or by qualitative tools that provide comparative values or rough estimates.

*MS4* is an acronym for "Municipal Separate Storm Sewer System" and is used to refer to either a Large, Medium, or Small Municipal Separate Storm Sewer System (e.g. "the Nashville MS4"). The term is used to refer to either the system operated by a single entity or a group of systems within an area that are operated by multiple entities.

*Municipal Separate Storm Sewer* (MS4) is defined at [40 CFR §122.26\(b\)\(8\)](#) and means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

- Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the state;

- Designed or used for collecting or conveying storm water;
- Which is not a combined sewer; and
- Which is not part of a Publicly Owned Treatment Works (POTW) as defined at [40 CFR §122.2](#).

*NPDES* is an acronym for the National Pollutant Discharge Elimination System which is a federal/state administered permit program initially mandated by the Federal Clean Water Act of 1972

*NOI* is an acronym for “[Notice of Intent](#)” to be covered by this permit and is the mechanism used to “register” for coverage under a general permit.

*Nonpoint Source* is essentially any source of pollutant(s) that is not a point source. Examples are sheet flow from pastures and runoff from paved areas.

*Point Source* means any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff.

*Priority construction activity* shall be defined by the MS4, but shall include, at a minimum, those construction activities discharging directly into, or immediately upstream of, waters the state recognizes as impaired (for siltation) or high quality waters.

*Small Municipal Separate Storm Sewer System* is defined at [40 CFR §122.26\(b\)\(16\)](#) and refers to all separate storm sewers that are owned or operated by the United States, a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the state, but is not defined as “large” or “medium” municipal separate storm sewer system. This term includes systems similar to separate storm sewer systems in municipalities, such as systems at military bases, large hospital or prison complexes, and highways and other thoroughfares. The term does not include separate storm sewers in very discrete areas, such as individual buildings.

*SOP* is an acronym for Standard Operating Procedure

SPCC Plan is an acronym for Spill Prevention Control and Countermeasure Plan required for certain facilities that store or use oil in accordance with 40 CFR § 112.3

*Storm Water* is defined at [40 CFR §122.26\(b\)\(13\)](#) and means storm water runoff, snow melt runoff, and surface runoff and drainage.

*Storm Water Management Program (SWMP)* refers to a comprehensive program to manage the quality of storm water discharged from the municipal separate storm sewer system. One element of the Storm Water Management Program required in this MS4 Permit is the State-Wide Storm Water Management Plan (the Plan). The Plan is specific to TDOT construction activity as prescribed in the Amended Order and Agreement Between TDEC and WPC dated March 10, 2004

*SWMP* is an acronym for “Storm Water Management Program.”

*SWPPP* Plan is an acronym for Storm Water Pollution Prevention Plan.

*TDEC* is an acronym for the Tennessee Department of Environment and Conservation.

*TDOT* is an acronym for the Tennessee Department of Transportation.

[TMDL \(Total Maximum Daily Load\)](#) in this permit generally refers to a study that: 1. quantifies the amount of a pollutant in a stream; 2. identifies the sources of the pollutant; and 3., recommends regulatory or other actions that may need to be taken in order for the stream to no longer be polluted. Quantitatively, it is the sum of the individual wasteload allocations for point sources and load allocations for nonpoint sources and natural background ([40 CFR §130.2\(I\)](#)). Following are actions that might be recommended: Re-allocate limits on the sources of pollutants documented as impacting streams. It might be necessary to lower the amount of pollutants being discharged under NPDES permits or to require the installation of other control measures, if necessary, to insure that standards will be met. For sources the division does not have regulatory authority over, such as ordinary non-point source agricultural and forestry activities, provide information and technical assistance to other state and federal agencies that work directly with these groups to install appropriate Best Management Practices. Even for the impacted streams found on the 303(d) List, TMDL development is not considered appropriate for all bodies of water: if enforcement has already been taken and a compliance schedule has been developed; or if best management practices have already been installed for non-regulated activities, the TMDL is considered not applicable. In causes involving pollution sources in other states, the recommendation may be that another state or EPA perform the TMDL analysis. TMDLs can be described by the following equation:

$$\text{TMDL} = \text{sum of non-point sources (LA)} + \text{sum of point sources (WLA)} + \text{margin of safety}$$

*Wasteload Allocation (WLA)*: The portion of a receiving water's loading capacity that is allocated to one of its existing or future point sources of pollution. WLAs constitute the type of water quality-based effluent limitation. ([40 CFR §130.2\(h\)](#)).

*Water quality buffer* means undisturbed vegetation, including trees, shrubs and herbaceous vegetation; enhanced or restored vegetation; or the re-establishment of vegetation bordering streams, ponds, wetlands, reservoirs or lakes, which exists or is established to protect those waterbodies.

*Water Quality-Limited Segments*: Those water segments that do not or are not expected to meet applicable water quality standards even after the application of technology-based effluent limitations required by sections 301(b) and 306 of the Act. ([40 CFR §130.2\(i\)](#)) Technology-based controls include, but are not limited to, best practicable control technology currently available (BPT) and secondary treatment.

*WQS* is an acronym for *Water Quality Standard*.

*Waters of the State* or simply *Waters* is defined in the [Tennessee Water Quality Control Act](#) and means any and all water, public or private, on or beneath the surface of the ground, which are contained within, flow through or border upon Tennessee or any portion thereof except those bodies of water confined to and retained within the limits of private property in single ownership which do not combine to effect a junction with natural surface or underground waters.

*Wet weather conveyances* are man-made or natural watercourses, including natural watercourses that have been modified by channelization, that flow only in direct response to precipitation runoff in their immediate locality and whose channels are above the groundwater table and which do not support fish and aquatic life and are not suitable for drinking water supplies. 1200-4-3-.04(4)

“*You*” and “*Your*” as used in this permit is intended to refer to the permittee, the operator, or the discharger as the context indicates and that party’s responsibilities (e.g., the city, the county, the flood control district, the U.S. Air Force, etc.).

*WPC* is an acronym for the Tennessee Division of Water Pollution Control (division)

## **ATTACHMENT B**

### **PROCEDURES FOR DETECTING, INVESTIGATING, AND ELIMINATING ILLICIT CONNECTIONS**

#### Detection

An illicit connection for the purposes of this permit, is any physical or non-physical connection that discharges domestic sewage, non-contact cooling water, process wastewater, or other industrial waste (other than storm water) into TDOT MS4, unless that discharge is authorized under a NPDES permit other than this MS4 Storm Water Permit (non-physical connections may include, but are not limited to, leaks, flows, or overflows into the municipal separate storm sewer system). An illicit connection is also any category of non-storm water discharges that TDOT identifies as a source or significant contributor of pollutants pursuant to 40 C.F.R. 122.34(b)(3)(iii).

MS4 outfall pipes, for the most part, should not be discharging during substantial dry periods (72) hours after a rain event). Such flow is frequently referred to as “dry weather flow”, which may be the result of an illicit connection. All dry weather flows are generally non-storm water discharges, however not all dry weather flows are illicit connections. Some non-storm water flows result from the improper disposal of waste (e.g., radiator flushing, engine degreasing, improper disposal of oil) and some may be the result of allowable discharges such as residential car washing, irrigation runoff, permitted (NPDES) discharges and natural waters (e.g., spring water and groundwater infiltration). By making physical observations, TDOT will compile information that will help determine if the dry weather flow is an illicit connection and the most likely source of the illicit connection. After making these physical observations, additional chemical field testing will enable TDOT to further narrow the potential sources of the illicit connection.

The first physical observation is to observe if there is a dry weather flow. Some dry weather discharges are continuously flowing and some are intermittent. Observations will allow TDOT to establish with reasonable certainty if there is an intermittent flow. If there are indications of intermittent flows (staining, odors, deterioration of outfall structure) follow-up investigations are required (see Investigation section). An estimate of the flow rate of the discharge shall also be noted (flow rate can be estimated by various methods, including timing how long it takes to fill a container of a known size). Additional physical observations and measurements shall be made for odor, color, turbidity, floatable matter, temperature, deposits and stains, vegetation and algal growth, and condition of outfall. Information compiled from physical observations and field monitoring should be used to help identify potential sources. These observations are very important since they are the simplest method of identifying grossly contaminated dry weather flows. If physical observations alone are sufficient to warrant further investigation, then field testing is not required.

If a dry weather flow exists and after making all physical observations (unless physical observations are enough to warrant further investigation), TDOT shall field test for indicator parameters that may help identify the source of the discharge. All of the tests for the tracing of illicit connections may be performed in the field by employees of TDOT

or may be contracted out. All person(s) responsible for calibrating, maintaining, and taking field samples shall be trained in the use of the equipment and appropriate field testing protocol.

### Investigation

Any storm sewer outfall pipe or drain found during the initial inspection or on any subsequent inspection to have a non-storm water discharge or indications of an intermittent non-storm water discharge requires further investigation by TDOT to identify and locate the specific source. Non-storm water discharges suspected of being sanitary sewage and/or significantly contaminated shall be prioritized and investigated first. Investigations of non-storm water discharges suspected of being cooling water, washwater, or natural flows may be delayed until after all suspected sanitary sewage and/or significantly contaminated discharges have been investigated, eliminated and/or resolved.

Dry weather flows believed to be an immediate threat to human health or the environment shall be reported immediately to the Division of Water Pollution Control.

Physical observations and field testing can help narrow the identification of potential sources of a non-storm water discharge. However it is unlikely that either will pinpoint the exact source. Therefore, TDOT will need to perform investigations “upstream” to identify illicit connections to systems with identified problem outfalls.

All non-storm water discharges, whether continuous or intermittent must be investigated by the TDOT. All investigations must be resolved. If the source is found to be a non-storm water discharge authorized under this MS4 permit, no further action is required. If a non-storm water discharge is found but no source is able to be located within six (6) months of beginning the investigation, then the TDOT shall submit to the Department an Investigation Report to close out the investigation. TDOT must document that a good faith effort was made to find the source of the dry weather discharge and document each phase of the investigation. If the observed discharge is intermittent the TDOT must document, in the Illicit Connection Inspection Report form, that a minimum three (3) separate investigations were made to observe the discharge when it is flowing. If these attempts are unsuccessful, TDOT shall submit to the division the Investigation Report noted above. However, since storm water management is an ongoing program under the MS4 permit, TDOT should periodically recheck these suspected intermittent discharges.

### Elimination

Non-storm water discharges traced to their source and found to be TDOT’s own illicit connections shall be eliminated within six (6) months of their discovery. The TDOT apply for an applicable NPDES permit for the discharge, but the discharge shall cease until a valid NPDES permit has been issued by the division. TDOT is required to verify that the illicit discharge was eliminated within the specified timeframe and ensure that measures taken to eliminate the discharge are permanent and are not implemented in such a manner that would allow easy reconnection to the MS4.

If an illicit connection cannot be located or is found to emanate from an entity other than TDOT, then TDOT must submit to the Department a written explanation detailing the results of the investigation, including, if applicable, reasons why TDOT cannot eliminate the discharge. If the illicit connection is found to be from another public entity, TDOT shall also notify that entity.

**ATTACHMENT C**  
**SAMPLING AND SURVEY PROCEDURES FOR TDOT RESEARCH PROJECTS TO**  
**EVALUATE THE IMPACTS OF SEDIMENT FROM ROAD CONSTRUCTION ON**  
**STREAM BIOTA**

- A. TDOT will conduct a walk-through with TDEC to view all water courses to determine which are streams that may be impacted by clearing, grubbing, cutting, or filling. The results of this walk-through will be submitted with TDOT's permit application or Notice of Intent.
- B. In addition, based on the streams identified during this walk-through, TDOT will formulate a plan, that must be approved in writing by TDEC, for conducting pre-construction stream surveys. These stream surveys will be conducted by TDOT and/or its consultant(s) prior to submitting any permit application or Notice of Intent to TDEC.
- C. These surveys shall include one upstream and four downstream stations on each stream designated in the study plan. Stations shall be selected by a professional biologist, and will be marked for post-construction repeatability. TDEC may approve an alternative survey design when circumstances warrant (for example, when little or no upstream area exists or an alternative sampling protocol would yield more useful information). Any such approval shall be in writing.
- D. These surveys shall include analysis of habitat, stream morphology, water quality, benthic macroinvertebrates and fish.
- E. These surveys shall be conducted during the period of April 1 through June 30 or October 15 through December 15 for macroinvertebrates, and during the period April 1 through September 30 for fish.
- F. The protocol to be used for the survey of benthic macroinvertebrates is found in TDEC, Division of Water Pollution Control Control !Quality System S for Standard Operating Procedure for Macroinvertebrate Stream Surveys, March 2002. The survey shall follow the procedures specified in I.I, Protocol G. Field Collection Techniques for Semi-Quantative Single Habitat Sample (SQKick or SQBank) a. Semi-Quantative Riffle Kick (SQKICK) or b. Modified SQKICK (small streams).
- G. The protocol to be used for the survey of fish is found in Tennessee Biological *Standard Operating Procedures manual: Volume II: Fish Communities*, March 1996. TDOT, or its consultant(s), performing the stream survey shall follow the procedures specified in Section II, Protocol for Conducting an Index of Biotic Integrity Biological Assessment, through Section IV, IBI Analysis. However, electrofishing will not be used in stream reaches, if any, know to have official state or federally listed threatened or endangered fauna.
- H. A report of findings made for each of these pre-construction stream surveys shall be submitted to TDEC with the ARAP application. Four copies shall be submitted to TDEC.
- I. Following final stabilization, TDOT and/or its consultant(s) shall conduct post-construction surveys of the same streams. The same survey stations and methods will be used as in the pre-construction surveys. These surveys shall be conducted in the first appropriate time of year for such stream survey following final stabilization.

## **ATTACHMENT D**

### **LIST OF TDOT FACILITIES AND STORM WATER CONTROLS**

Each TDOT facility listed below in Table D-1, or constructed after the effective date of this permit, must have a Storm Water Pollution Prevention Plan per the following requirements and either representative samples for its group or a No Exposure Certification from TDEC.

#### **Storm Water Pollution Prevention Plan Requirements**

**Contents of the Plan.** The plan shall include, at a minimum, the following items:

- (1) **Pollution Prevention Team.** Each plan shall identify a specific individual or individuals within the facility organization as members of a storm water Pollution Prevention Team who are responsible for developing the storm water pollution prevention plan and assisting the facility or plant manager in its implementation, maintenance, and revision. The plan shall clearly identify the responsibilities of each team member. The activities and responsibilities of the team shall address all aspects of the facility's storm water pollution prevention plan.
- (2) **Description of Potential Pollutant Sources.** Each plan shall provide a description of potential sources which may reasonably be expected to add significant amounts of pollutants to storm water discharges or which may result in the discharge of pollutants during dry weather from separate storm sewers draining the facility. Each plan shall identify all activities and significant materials which may potentially be significant pollutant sources. Each plan shall include, at a minimum:
  - (a) **Drainage**—A site map indicating the location of each point of discharge of storm water associated with industrial activity, an outline of the portions of the drainage area of each storm water outfall that are within the facility boundaries (with a prediction of the direction of flow), each existing structural control measure to reduce pollutants in storm water runoff, surface water bodies, locations where significant materials are exposed to precipitation, locations where major spills or leaks identified under the Section Spills and Leaks of this permit have occurred, and the locations of the following activities: fueling stations, vehicle and equipment maintenance and/or cleaning areas, storage areas for vehicles and equipment with actual or potential fluid leaks loading/unloading areas, locations used for the treatment, storage or disposal of wastes, liquid storage tanks, processing areas, storage areas, and all monitoring locations. The site map must also indicate the types of discharges contained in the drainage areas of the outfalls (e.g., storm water and air conditioner condensate). In order to increase the readability of the map, the inventory of the types of discharges contained in each outfall may be kept as an attachment to the site map.

For each area of the facilities that generates storm water discharges associated with industrial activity with a reasonable potential for containing significant amounts of pollutants, a prediction of the direction of flow, and an identification of the types of pollutants which are likely to be present in storm water discharges associated with industrial activity. Factors to consider include the toxicity of chemical; quantity of chemicals used, produced or discharged; the likelihood of contact with storm water; and history of significant leaks or spills of toxic or hazardous pollutants. In addition, flows with a significant potential for causing erosion shall be identified such as heavy equipment use areas, drainage from roofs, parking lots, etc.

- (b) **Inventory of Exposed Materials**—An inventory of the types of materials handled at the site that potentially may be exposed to precipitation. Such inventory shall include a narrative description of significant materials that have been handled, treated, stored or disposed in a manner to allow exposure to storm water between the time of 3 years prior to the date of the submission of a Notice of Intent (NOI) to be covered under this permit and the present; method and location of onsite storage or disposal; dirt or gravel parking areas for storage of vehicles to be maintained; materials management practices employed to minimize contact of materials with storm water runoff between the time of 3 years prior to the date of the submission of a Notice of Intent (NOI) to be covered under this permit and the present; the location and a description of existing structural and nonstructural control measures to reduce pollutants in storm water runoff; and a description of any treatment the storm water receives.
- (c) **Spills and Leaks**—A list of significant spills and significant leaks of toxic or hazardous pollutants that occurred at areas that are exposed to precipitation or that otherwise drain to a storm water conveyance at the facility after the date of 3 years prior to the date of the submission of a Notice of Intent (NOI) to be covered under this permit. Such list shall be updated as appropriate during the term of the permit.
- (d) **Sampling Data**—A summary of existing discharge sampling data describing pollutants in storm water discharges from the facility, including a summary of sampling data collected during the term of this permit.
- (e) **Summary of Potential Pollutant Sources**—A narrative description of the potential pollutant sources from the following activities associated with vehicle and equipment maintenance and equipment cleaning: fueling stations; maintenance shops; equipment or vehicle cleaning areas; paved dirt or gravel parking areas for vehicles to be maintained; loading and unloading operations; outdoor storage activities; outdoor manufacturing or processing activities; significant dust or particulate generating processes;

and onsite waste disposal practices. The description shall specifically list any significant potential source of pollutants at the site and for each potential source, any pollutant or pollutant parameter (e.g., oil and grease, etc.) of concern shall be identified.

- (3) Measures and Controls. Each facility covered by this permit shall develop a description of storm water management controls appropriate for the facility, and implement such controls. The appropriateness and priorities of controls in a plan shall reflect identified potential sources of pollutants at the facility. The description of storm water management controls shall address the following minimum components, including a schedule for implementing such controls:
- (a) Good Housekeeping—All areas that may contribute pollutants to storm water discharges shall be maintained in a clean, orderly manner.
  - (b) Preventive Maintenance—A preventive maintenance program shall include timely inspection and maintenance of storm water management devices (e.g., cleaning oil/water separators, catch basins, drip pans, vehicle-mounted drip containment devices) as well as inspecting and testing facility equipment and systems to uncover conditions that could cause breakdowns or failures resulting in discharges of pollutants to surface waters, and ensuring appropriate maintenance of such equipment and systems.
  - (c) Spill Prevention and Response Procedures—Areas where potential spills could contribute pollutants to storm water discharges, and their accompanying drainage points, shall be identified clearly in the storm water pollution prevention plan. Where appropriate, specifying material handling procedures, storage requirements, and use of equipment such as diversion valves in the plan should be considered. Procedures and equipment for cleaning up spills shall be identified in the plan and made available to the appropriate personnel.
  - (d) Inspections—Qualified facility personnel shall be identified to inspect designated equipment and areas of the facility at appropriate intervals specified in the plan. A set of tracking or follow-up procedures shall be used to ensure that appropriate actions are taken in response to the inspections. Records of Inspections shall be maintained.
  - (e) Employee Training—Employee training programs shall inform personnel responsible for implementing activities identified in the storm water pollution prevention plan or otherwise responsible for storm water management of the components and goals of the storm water pollution prevention plan. Training should address topics such as spill response, good housekeeping and material management practices. The pollution prevention plan shall identify how often training will take place; at a

minimum, training must be held annually (once per calendar year). Employee training must, at a minimum, address the following areas when applicable to a facility: summary of the facility's pollution prevention plan requirements; used oil management; spent solvent management; spill prevention, response and control; fueling procedures; general good housekeeping practices; proper painting procedures; and used battery management.

- (f) Recordkeeping and Internal Reporting Procedures—A description of incidents (such as spills, or other discharges), along with other information describing the quality and quantity of storm water discharges shall be included in the plan required under this part. Inspections and maintenance activities shall be documented and records of such activities shall be incorporated into the plan.
- (g) Non-storm Water Discharges
  - (i) The plan shall include a certification that the discharge has been tested or evaluated for the presence of non-storm water discharges. The certification shall include the identification of potential significant sources of non-storm water at the site, a description of the results of any test and/or evaluation for the presence of non-storm water discharges, the evaluation criteria or testing method used, the date of any testing and/or evaluation, and the onsite drainage points that were directly observed during the test. Certifications shall be signed in accordance with Signatory Requirements of this permit. Such certification may not be practical if the facility operating the storm water discharge associated with industrial activity does not have access to an outfall, manhole, or other point of access to the ultimate conduit which receives the discharge. In such cases, the source identification section of the storm water pollution prevention plan shall indicate why the certification required by this part was not practical, along with the identification of potential significant sources of non-storm water at the site. A discharger that is unable to provide the certification required by this paragraph must notify the Division of Water Pollution Control in accordance with Failure to Certify of this permit.
  - (ii) Sources of non-storm water that are combined with storm water discharges associated with industrial activity must be identified in the plan. The plan shall identify and ensure the implementation of appropriate pollution prevention measures for the non-storm water component(s) of the discharge. Any non-storm water discharges that are not permitted under an individual NPDES permit should be brought to the attention of the division's local Field Office (see APPENDIX I).

- (iii) A copy of the NPDES permit issued for wastewater, industrial, vehicle and equipment washwater discharges or, if an NPDES permit has not yet been issued, a copy of the pending application must be attached to or referenced in the plan. For facilities that discharge vehicle and equipment washwaters to the sanitary sewer system, the operator of the sanitary system and associated treatment plant must be notified. In such cases, a copy of the notification letter must be attached to the plan. If an industrial user permit is issued under a pretreatment program, a copy of that permit must be attached in the plan. In all cases, any permit conditions or pretreatment requirements must be considered in the plan. If the washwaters are handled in another manner (e.g., hauled offsite), the disposal method must be described and all pertinent documentation (e.g., frequency, volume, destination, etc.) must be attached to the plan.
- (iv) Failure to Certify—Any facility that is unable to provide the certification required (testing for non-storm water discharges), must notify the Division of Water Pollution Control by November 30, 1997 or, for facilities which begin to discharge storm water associated with industrial activity after November 30, 1997, 180 days after submitting an NOI to be covered by this permit. If the failure to certify is caused by the inability to perform adequate tests or evaluations, such notification shall describe: the procedure of any test conducted for the presence of non-storm water discharges; the results of such test or other relevant observations; potential sources of non-storm water discharges to the storm sewer; and why adequate tests for such storm sewers were not feasible. Non-storm water discharges to waters of the State, which are not authorized by an NPDES permit are unlawful, and must be terminated.
- (h) Sediment and Erosion Control—The plan shall identify areas which, due to topography, activities, or other factors, have a high potential for significant soil erosion, and identify structural, vegetative, and/or stabilization measures to be used to limit erosion.
- (i) Management of Runoff—The plan shall contain a narrative consideration of the appropriateness of storm water management practices (practices other than those which control the generation or source(s) of pollutants) used to divert, infiltrate, reuse, or otherwise manage storm water runoff in a manner that reduces pollutants in storm water discharges from the site. The plan shall provide for the implementation and maintenance of measures that the permittee determines to be reasonable and appropriate. The potential of various sources at the facility to contribute pollutants to storm water discharges associated with industrial activity of this permit

shall be considered when determining reasonable and appropriate measures. Appropriate measures or other equivalent measures may include: vegetative swales and practices, reuse of collected storm water (such as for a process or as an irrigation source), inlet controls (such as oil/water separators), snow management activities, infiltration devices, and wet detention/retention devices.

- (4) Comprehensive Site Compliance Evaluation. Qualified personnel shall conduct comprehensive site compliance evaluations at appropriate intervals specified in the plan, but, in no case less than once a year. Such evaluations shall provide:
- (a) Areas contributing to a storm water discharge associated with industrial activity shall be visually inspected for evidence of, or the potential for, pollutants entering the drainage system. Measures to reduce pollutant loadings shall be evaluated to determine whether they are adequate and properly implemented in accordance with the terms of the permit or whether additional control measures are needed. Structural storm water management measures, sediment and erosion control measures, and other structural pollution prevention measures identified in the plan shall be observed to ensure that they are operating correctly. A visual inspection of equipment needed to implement the plan, such as spill response equipment, shall be made.
  - (b) Based on the results of the evaluation, the description of potential pollutant sources identified in the plan in accordance with Part XI.P.3.b.(2) (Description of Potential Pollutant Sources) of this permit and pollution prevention measures and controls identified in the plan in accordance with Measures and Controls of this permit shall be revised as appropriate within 2 weeks of such evaluation and shall provide for implementation of any changes to the plan in a timely manner, but in no case more than 12 weeks after the evaluation.
  - (c) A report summarizing the scope of the evaluation, personnel making the evaluation, the date(s) of the evaluation, major observations relating to the implementation of the storm water pollution prevention plan, and actions taken in accordance with the permit shall be made and retained as part of the storm water pollution prevention plan for at least 3 years after the date of the evaluation. The report shall identify any incidents of noncompliance. Where a report does not identify any incidents of noncompliance, the report shall contain a certification that the facility is in compliance with the storm water pollution prevention plan and this permit. The report shall be signed in accordance with Signatory Requirements of this permit.

**Group P.**  
**Regional, District, County, and Other Garages and Equipment Storage Areas**

The following areas must be specifically addressed for Group P facilities:

- (i) Vehicle and Equipment Storage Areas—The storage of vehicles and equipment awaiting maintenance with actual or potential fluid leaks must be confined to designated areas (delineated on the site map). The plan must describe measures that prevent or minimize contamination of the storm water runoff from these areas. The facility shall consider the use of drip pans under vehicles and equipment, indoor storage of the vehicles and equipment, installation of berming and diking of this area, use of absorbents, roofing or covering storage areas, cleaning pavement surface to remove oil and grease, or other equivalent methods.
- (ii) Fueling Areas—The plan must describe measures that prevent or minimize contamination of the storm water runoff from fueling areas. The facility shall consider covering the fueling area, using spill and overflow protection and cleanup equipment, minimizing runoff of storm water to the fueling area, using dry cleanup methods, collecting the storm water runoff and providing treatment or recycling, or other equivalent measures.
- (iii) Material Storage Areas—Storage units of all materials (e.g., used oil, used oil filters, spent solvents, paint wastes, radiator fluids, transmission fluids, hydraulic fluids) must be maintained in good condition, so as to prevent contamination of storm water, and plainly labeled (e.g., "used oil," "spent solvents," etc.). The plan must describe measures that prevent or minimize contamination of the storm water runoff from such storage areas. The facility shall consider indoor storage of the materials, installation of berming and diking of the area, minimizing runoff of storm water to the areas, using dry cleanup methods, collecting the storm water runoff and providing treatment, or other equivalent methods.
- (iv) Vehicle and Equipment Cleaning Areas—The plan must describe measures that prevent or minimize contamination of the storm water runoff from all areas used for vehicle and equipment cleaning. The facility shall consider performing all cleaning operations indoors, covering the cleaning operation, ensuring that all washwaters drain to the intended collection system (i.e., not the storm water drainage system unless NPDES permitted), collecting the storm water runoff from the cleaning area and providing treatment or recycling, or other equivalent measures. The discharge of vehicle and equipment wash waters, including tank cleaning operations, are not authorized by this permit and must be covered under a separate NPDES permit or discharged to a sanitary sewer in accordance with applicable industrial pretreatment requirements.

- (v) Vehicle and Equipment Maintenance Areas—The plan must describe measures that prevent or minimize contamination of the storm water runoff from all areas used for vehicle and equipment maintenance. The facility shall consider performing all maintenance activities indoors, using drip pans, maintaining an organized inventory of materials used in the shop, draining all parts of fluids prior to disposal, prohibiting wet clean up practices where the practices would result in the discharge of pollutants to storm water drainage systems, using dry cleanup methods, collecting the storm water runoff from the maintenance area and providing treatment or recycling, minimizing runoff of storm water areas or other equivalent measures.

(1) Discharges Covered Under This Section

Storm water discharges from ground transportation facilities and rail transportation facilities (generally identified by Standard Industrial Classification (SIC) codes 40, 41, 42, 43, and 5171), that have vehicle and equipment maintenance shops (vehicle and equipment rehabilitation, mechanical repairs, painting, fueling and lubrication) and/or equipment cleaning operations are eligible for coverage under this section.

When an industrial facility, described by the above coverage provisions of this section, has industrial activities being conducted onsite that meet the description(s) of industrial activities in another section(s), that industrial facility shall comply with any and all applicable monitoring and pollution prevention plan requirements of the other section(s) in addition to all applicable requirements in this section. The monitoring and pollution prevention plan terms and conditions of this multi-sector permit are additive for industrial activities being conducted at the same industrial facility (co-located industrial activities). The operator of the facility shall determine which other monitoring and pollution prevention plan section(s) of this permit (if any) are applicable to the facility.

- (2) Special Conditions - Prohibition of Non-storm Water Discharges. Except for those allowable non-storm water discharges included in Allowable Non-Storm Water Discharges of this permit, there are no other non-storm water discharges authorized in this Sector.
- (3) Numeric Effluent Limitations. There are no additional numeric effluent limitations for this permit.
- (4) Monitoring and Reporting Requirements

Quarterly Visual Examination of Storm Water Quality. Facilities shall perform and document a visual examination of a storm water discharge associated with industrial activity from each outfall, except discharges exempted under paragraph (d) below. The examination(s) must be made at least once in each designated

period [described in (a), below] during facility operation in the daylight hours unless there is insufficient rainfall or snow melt to produce a runoff event.

- (a) Examinations shall be conducted in each of the following periods for the purposes of visually inspecting storm water quality associated with storm water runoff or snow melt: January through March; April through June; July through September; and October through December.
- (b) Examinations shall be made of samples collected within the first 30 minutes (or as soon thereafter as practical, but not to exceed one hour) of when the runoff or snowmelt begins discharging. The examinations shall document observations of color, odor, clarity, floating solids, settled solids, suspended solids, foam, oil sheen, and other obvious indicators of storm water pollution. The examination must be conducted in a well lit area. No analytical tests are required to be performed on the samples. All such samples shall be collected from the discharge resulting from a storm event that is greater than 0.1 inches in magnitude and that occurs at least 72 hours from the previously measurable (greater than 0.1 inch rainfall) storm event. Where practicable, the same individual will carry out the collection and examination of discharges for the life of the permit.

When a discharger is unable to collect samples over the course of the visual examination period as a result of adverse climatic conditions, the discharger must document the reason for not performing the visual examination and retain this documentation onsite with the records of the visual examinations. Adverse weather conditions which may prohibit the collection of samples include weather conditions that create dangerous conditions for personnel (such as local flooding, high winds, hurricanes, tornadoes, electrical storms, etc.) or otherwise make the collection of a sample impracticable (drought, extended frozen conditions, etc.).

- (c) Visual examination reports must be maintained onsite in the pollution prevention plan. The report shall include the examination date and time, examination personnel, the nature of the discharge (i.e., runoff or snow melt), visual quality of the storm water discharge (including observations of color, odor, clarity, floating solids, settled solids, suspended solids, foam, oil sheen, and other obvious indicators of storm water pollution), and probable sources of any observed storm water contamination.
- (d) When a facility has two or more outfalls that, based on a consideration of industrial activity, significant materials, and management practices and activities within the area drained by the outfall, the permittee reasonably believes discharge substantially identical effluents, the permittee may collect a sample of effluent of one of such outfalls and report that the examination data also applies to the substantially identical outfalls provided that the permittee includes in the storm water pollution

prevention plan a description of the location of the outfalls and explaining in detail why the outfalls are expected to discharge substantially identical effluents. In addition, for each outfall that the permittee believes is representative, an estimate of the size of the drainage area (in square feet) and an estimate of the runoff coefficient of the drainage area [e.g., low (under 40 percent), medium (40 to 65 percent), or high (above 65 percent)] shall be provided in the plan.

- (e) When a discharger is unable to conduct visual storm water examinations at an inactive and unstaffed site, the operator of the facility may exercise a waiver of the monitoring requirement as long as the facility remains inactive and unstaffed. The facility must maintain a certification with the pollution prevention plan stating that the site is inactive and unstaffed so that performing visual examinations during a qualifying event is not feasible.

### **Group S. Airport Facilities**

- (1) Discharges Covered Under This Section. The requirements listed under this section shall apply to storm water discharges from establishments and/or facilities including airports, air terminals, air carriers, flying fields, and establishments engaged in servicing or maintaining airports and/or aircraft (generally classified under Standard Industrial Classification (SIC) code 45) which have vehicle maintenance shops, material handling facilities, equipment cleaning operations or airport and/or aircraft deicing/anti-icing operations.

SIC Code	Group S: Vehicle Maintenance Areas, Equipment Cleaning Areas or From Airport Deicing Operations located at Air Transportation Facilities	Sampling Required?	Table Number
4512	Air Transportation, Scheduled	No*	S-1
4513	Air Courier Services	No*	S-1
4522	Air Transportation, Nonscheduled	No*	S-1
4581	Airports, Flying Fields, and Airport Terminal Services	No*	S-1
* Except for airports that use more than 100,000 gallons of glycol-based deicing/anti-icing chemicals and/or 100 tons or more of urea on an average annual basis: see Part 5: "Monitoring and Reporting Requirements."			

For the purpose of this permit, the term "deicing" is defined as the process to remove frost, snow, or ice and "anti-icing" is the process, which prevents the accumulation of frost, snow, or ice.

**Coverage.** Only those portions of the facility or establishment that are either involved in vehicle maintenance (including vehicle rehabilitation, mechanical repairs, painting, fueling, and lubrication), equipment cleaning operations, or deicing/anti-icing operations are addressed under this section.

When an industrial facility, described by the above coverage provisions of this section, has industrial activities being conducted onsite that meet the

description(s) of industrial activities in another section(s), that industrial facility shall comply with any and all applicable monitoring and pollution prevention plan requirements of the other section(s) in addition to all applicable requirements in this section. The monitoring and pollution prevention plan terms and conditions of this multi-sector permit are additive for industrial activities being conducted at the same industrial facility (co-located industrial activities). The operator of the facility shall determine which other monitoring and pollution prevention plan section(s) of this permit (if any) are applicable to the facility.

(2) Special Conditions

- (a) Prohibition of Non-storm Water Discharges. In addition to those discharges prohibited under this permit, non-storm water discharges including aircraft, ground vehicle, runway and equipment washwaters, and dry weather discharges of deicing/anti-icing chemicals are not authorized by this permit. Dry weather discharges are those discharges generated by processes other than those included in the definition of storm water. The definition of storm water includes storm water runoff, snow melt runoff, and surface runoff and drainage. All other discharges constitute non-storm water discharges. Operators of non-storm water discharges must obtain coverage under a separate National Pollutant Discharge Elimination System (NPDES) permit if discharged to waters of the State or through a municipal separate storm sewer system.
- b) Releases of Reportable Quantities of Hazardous Substances and Oil. Each individual permittee is required to report spills equal to or exceeding the reportable quantity levels specified at 40 CFR 110, 117, and 302. If an airport authority is the sole permittee, then the sum total of all spills at the airport must be assessed against the RQ. If the airport authority is a co-permittee with other deicing/anti-icing operators at the airport, such as numerous different airlines, the assessed amount must be the summation of spills by each co-permittee. If separate, distinct individual permittees exist at the airport, then the amount spilled by each separate permittee must be the assessed amount for the RQ determination.

(3) Numeric Effluent Limitations. There are no additional numeric effluent limitations with this section of the permit.

(4) Monitoring and Reporting Requirements

- (a) During the period beginning on the effective date and lasting through the expiration date of this permit, (airports that use more than 100,000 gallons of glycol-based deicing/anti-icing) chemicals and/or 100 tons or more of urea on an average annual basis): Shall prepare estimates for annual pollutant loadings resulting from discharges of spent deicing/anti-icing chemicals from the entire airport. The loading estimates shall reflect the

amounts of deicing/anti-icing chemicals discharged to separate storm sewer systems or surface waters, prior to and after implementation of the facility's storm water pollution prevention plan. Such estimates shall be reviewed by an environmental professional, and certified by such professional. By means of the certification, the environmental professional, having examined the facility's deicing/anti-icing procedures, and proposed control measures described in the storm water pollution prevention plan, shall attest that the loading estimates have been accurately prepared. Certified loading estimates are to be retained at the airport facility and attached to the storm water pollution prevention plan.

The inspection frequency shall be specified in the plan, but at a minimum be conducted once per week during deicing/anti-icing application periods for areas where deicing/anti-icing operations are being conducted.

- (b) **Analytical Monitoring Requirements.** Airports that use more than 100,000 gallons of glycol-based deicing/anti-icing chemicals and/or 100 tons or more of urea on an average annual basis shall monitor outfalls from the airport facility that collect runoff from areas where deicing/anti-icing activities occur, except as provided in Sampling Waiver. Airports, which are subject to these monitoring requirements, must sample their storm water discharges for the parameters listed in Table S-1 below. Such facilities must report in accordance Reporting. In addition to the parameters listed in Table S-1 below, the permittee shall provide the date and duration (in hours) of the precipitation event(s) sampled; measurements or estimates (in inches) of the precipitation event that generated the sampled runoff; the duration between the event sampled and the end of the previous measurable (greater than 0.1 inch rainfall) event; and an estimate of the total volume (in gallons) of the discharge sampled.

**Table S-1. Monitoring Requirements**

<b>Pollutants of Concern</b>	<b>Cut-Off Concentration</b>	<b>Group Median Value * [mg/L]</b>
Biochemical Oxygen Demand (BOD <sub>5</sub> )	30 mg/L	7.5
Chemical Oxygen Demand (COD)	120 mg/L	28
Ammonia	4 mg/L	No Data
pH	5.0 to 9.0	Not Applicable

\* Sector Median Value is a pollutant concentration calculated from all sampling results provided from facilities classified in this sector during the previous permit term. By definition, a median is a statistical term identifying a number that divides numerically ordered data into two equal halves. In easier terms, the median is the middle piece of data when those data are placed in numerical order, or the average of the middle two if there is an even number of items. Therefore, median concentration(s) listed above represent a concentration value typical for and achieved by industries in this sector.

For the purposes of today's final permit, the "average annual" usage rate of deicing/anti-icing chemicals is determined by averaging the cumulative amount of deicing/anti-icing chemicals used by all operators at the airport facility in the 3 previous calendar years.

- (i) **Monitoring Periods.** Airports where more than 100,000 gallons of glycol-based deicing/anti-icing chemicals and/or 100 tons or more of urea are used on an average annual basis shall monitor outfalls from the facility that collect runoff from areas where deicing/anti-icing activities occur four times per year during the months of December, January, and February when deicing/anti-icing activities are occurring, in the years specified in paragraph b. (above).
- (ii) **Sample Type.** A minimum of one grab sample and one flow-weighted composite sample shall be taken from each outfall that collects runoff from areas where deicing/anti-icing activities occur. All such samples shall be collected from a discharge resulting from a precipitation event that is greater than 0.1 inches in magnitude and that occurs at least 72 hours from the previously measurable (greater than 0.1 inch rainfall) precipitation event. The required 72-hour storm event interval is waived where the preceding measurable storm event did not result in a measurable discharge from the facility. The required 72-hour storm event interval may also be waived where the permittee documents that less than a 72-hour interval is representative for local storm events during the season when sampling is being conducted. The grab sample should be taken when pollutant concentrations in the storm water/melt water discharges from deicing/anti-icing operations are expected to be at a maximum. The recommended methodology for performing grab and flow-weighted composite sampling is described at 40 CFR 122.21(g)(7). The permittee has the option to submit site-specific deicing/anti-icing discharge monitoring protocol and methodology, better suited to the particular facility, to the Division of Water Pollution Control for approval.

In addition, the permittee shall evaluate the results obtained from sampling and monitoring following the required annual sampling events to determine whether the facility is below, meets, or exceeds the monitoring cut-off concentrations as shown in the table above. If the results of annual storm water runoff monitoring demonstrate that the facility has exceeded the cut-off concentration(s), the permittee must inform the division's local Environmental Assistance Center in writing within 30 days from the time storm water monitoring results were received, describing the likely cause of the exceedance(s). Furthermore, within 60 days from the time storm water monitoring results were received, the facility must review its

storm water pollution prevention plan, make any modifications or additions to the plan which would assist in reducing effluent concentrations to less than the monitoring cut-off concentrations for that facility, and submit to the division's local Environmental Assistance Center a brief summary of the proposed SWPPP modifications (including a timetable for implementation).

(iii) Sampling Waiver

- (a) Adverse Conditions—Adverse weather conditions that may prohibit the collection of samples include weather conditions that create dangerous conditions for personnel (such as high winds, blizzard conditions, ice storms, etc.) or otherwise make the collection of a sample impracticable (extended frozen conditions, etc.).
  - (b) Low Concentration Waiver—When the average concentration for a parameter calculated from all grab samples collected during the monitoring period January 1, 1998 lasting through December 31, 1998 is less than the corresponding value for that parameter listed in Table S-1 under the column Monitoring Cut-Off Concentration, a facility may waive monitoring and reporting requirements in the monitoring period beginning January 1, 2000 lasting through December 31, 2000. The facility must submit to the Division of Water Pollution Control, in lieu of the monitoring data, a certification that there has not been a significant change in industrial activity or the pollution prevention measures in area of the facility which drains to the outfall for which sampling was waived.
  - (c) When a discharger is unable to conduct quarterly chemical storm water sampling at an inactive and unstaffed site, the operator of the facility may exercise a waiver of the monitoring requirements as long as the facility remains inactive and unstaffed. The facility must submit to the Division of Water Pollution Control, in lieu of monitoring data, a certification statement on the DMR stating that the site is inactive and unstaffed so that collecting a sample during a qualifying event is not possible.
- (iv) Representative Discharge. When a facility has two or more outfalls that, based on a consideration of industrial activity, significant materials, and management practices and activities within the area drained by the outfall, the permittee reasonably believes discharge substantially identical effluents, the permittee may test the effluent

of one of such outfalls and report that the quantitative data also applies to the substantially identical outfall(s) provided that the permittee includes in the storm water pollution prevention plan a description of the location of the outfalls and explains in detail why the outfalls are expected to discharge substantially identical effluents. In addition, for each outfall that the permittee believes is representative, an estimate of the size of the drainage area (in square feet) and an estimate of the runoff coefficient of the drainage area [e.g., low (under 40 percent), medium (40 to 65 percent), or high (above 65 percent)] shall be provided in the plan. The permittee shall include the description of the location of the outfalls, explanation of why outfalls are expected to discharge substantially identical effluents, and estimate of the size of the drainage area and runoff coefficient with the TMSP Storm Water Monitoring Report.

- c) Reporting. Airports identified in Part XI.S.5.6 shall submit monitoring results obtained during the reporting period beginning January 1, 1998 lasting through December 31, 1998 on TMSP Storm Water Monitoring Report Form(s) postmarked no later than the 31st day of March. Monitoring results obtained during the period beginning January 1, 2000 lasting through December 31, 2000 shall be submitted on TMSP Storm Water Monitoring Report Form(s) postmarked no later than the 31st day of the following March. A separate TMSP Storm Water Monitoring Report Form is required for each sampling period. For each outfall, one signed TMSP Storm Water Monitoring Report form must be submitted per storm event sampled. Signed copies of TMSP Storm Water Monitoring Reports, or waiver, shall be submitted to the Enforcement and Compliance Section of the Division of Water Pollution Control located at 6th Floor L & C Annex, 401 Church Street, Nashville, TN 37243-1534.

#### Housekeeping

- (i) Aircraft, Ground Vehicle and Equipment Maintenance Areas—Permittees should ensure the maintenance of equipment is conducted in designated areas only and clearly identify these areas on the ground and delineate them on the site map. The plan must describe measures that prevent or minimize the contamination of the storm water runoff from all areas used for aircraft, ground vehicle and equipment maintenance (including the maintenance conducted on the terminal apron and in dedicated hangars). Management practices or equivalent measures such as performing maintenance activities indoors, maintaining an organized inventory of materials used in the maintenance areas, draining all parts of fluids prior to disposal, preventing the practice of hosing down the apron or hangar floor, using dry cleanup methods, and/or collecting the storm water runoff from the maintenance area and providing treatment or recycling should be considered.

- (ii) Aircraft, Ground Vehicle and Equipment Cleaning Areas—Permittees should ensure that cleaning of equipment is conducted in designated areas only and clearly identify these areas on the ground and delineate them on the site map. The plan must describe measures that prevent or minimize the contamination of the storm water runoff from all areas used for aircraft, ground vehicle and equipment cleaning. Management practices such as performing cleaning operations indoors, and/or collecting the storm water runoff from the cleaning area and providing treatment or recycling should be considered.
- (iii) Aircraft, Ground Vehicle and Equipment Storage Areas—The storage of aircraft, ground vehicles and equipment awaiting maintenance must be confined to designated areas (delineated on the site map). The plan must describe measures that prevent or minimize the contamination of the storm water runoff from these areas. Management practices such as indoor storage of aircraft and ground vehicles, the use of drip pans for the collection of fluid leaks, and perimeter drains, dikes or berms surrounding storage areas should be considered.
- (iv) Material Storage Areas—Storage units of all materials (e.g., used oils, hydraulic fluids, spent solvents, and waste aircraft fuel) must be maintained in good condition, so as to prevent or minimize contamination of storm water, and plainly labeled (e.g., "used oil," "Contaminated Jet A," etc.). The plan must describe measures that prevent or minimize contamination of the storm water runoff from storage areas. Management practices or equivalent measures such as indoor storage of materials, centralized storage areas for waste materials, and/or installation of berming and diking around storage areas should be considered for implementation.
- (v) Airport Fuel System and Fueling Areas—The plan must describe measures that prevent or minimize the discharge of fuels to the storm sewer resulting from fuel servicing activities or other operations conducted in support of the airport fuel system. Where the discharge of fuels into the storm sewer cannot be prevented, the plan shall indicate measures that will be employed to prevent or minimize the discharge of the contaminated runoff into receiving surface waters. Management practices or equivalent measures such as implementing spill and overflow practices (e.g., placing sorptive materials beneath aircraft during fueling operations), using dry cleanup methods, and/or collecting the storm water runoff should be considered.

Facilities which conduct deicing/anti-icing operations shall maintain a record of the types [including the Material Safety Data Sheets (MSDS)] and monthly quantities of deicing/anti-icing chemicals used. Tenants and fixed-base operators who conduct deicing/anti-icing operations shall provide the above information to the airport authority for inclusion in the storm water pollution prevention plan for the entire facility.

- (a) Source Reduction—Operators who conduct aircraft and/or runway (including taxiways and ramps) deicing/anti-icing operations shall evaluate present operating procedures to consider alternative practices to reduce the overall amount of deicing/anti-icing chemicals used and/or lessen the environmental impact of the pollutant source.
- (i) With regard to runway deicing operations, operators, at a minimum, shall evaluate: present application rates to ensure against excessive over application; metered application of deicing chemical; pre-wetting dry chemical constituents prior to application; installation of runway ice detection systems; implementing anti-icing operations as a preventive measure against ice buildup; the use of substitute deicing compounds such as potassium acetate in lieu of ethylene glycol, propylene glycol and/or urea.
  - (ii) In considering source reduction management practices for aircraft deicing operations, operators, at a minimum, should evaluate current application rates and practices to ensure against excessive over application, and consider pretreating aircraft with hot water prior to the application of a deicing chemical, thus reducing the overall amount of chemical used per operation.

Source reduction measures that the operator determines to be reasonable and appropriate shall be implemented and maintained. The plan shall provide a narrative explanation of the options considered and the reasoning for whether or not to implement them.

- (b) Management of Runoff—The plan shall contain a narrative consideration of the appropriateness of traditional storm water management practices (practices other than those which prevent or reduce source(s) of pollutants) used to divert, infiltrate, reuse, or otherwise manage storm water runoff in a manner that reduces pollutants in storm water discharges from the site. The potential of various sources at the facility to contribute pollutants to storm water discharges associated with industrial activity [see paragraph XI.S.3.a.(2) (Description of Potential Pollutant Sources)] shall be considered. Appropriate measures or equivalent measures may include: vegetative swales, reuse of collected storm water (such as for a process or as an irrigation source), inlet controls (such as oil/water separators), snow management activities, infiltration devices, and wet detention/retention devices. Measures that the permittee determines to be reasonable and appropriate shall be implemented and maintained.

Operators that conduct aircraft and/or runway deicing/anti-icing operations shall also provide a narrative consideration of management practices to control or manage contaminated runoff from areas where deicing/anti-icing operations occur to reduce the amount of pollutants being discharged from the site. Structural controls such as establishing a centralized aircraft deicing facility, and/or collection of contaminated

runoff for treatment or recycling should be considered. Collection and treatment alternatives include, but are not limited to, retention basins, detention basins with metered controlled release, Underground Storage Tanks (USTs) and/or disposal to Publicly Owned Treatment Works (POTW) by way of sanitary sewer or hauling tankers. Runoff management controls that the operator determines to be reasonable and appropriate shall be implemented and maintained. The plan should consider the recovery of deicing/anti-icing materials when these materials are applied during non-precipitation events to prevent these materials from later becoming a source of storm water contamination. The plan shall provide a narrative explanation of the controls selected and the reasons for their selection.

**Group T.**  
**Welcome Centers and Rest Areas**

(1) Discharges Covered Under This Section

This permit covers all existing point source discharges of storm water from treatment works treating domestic sewage or any other sewage sludge or wastewater treatment device or system, used in the storage, treatment, recycling, and reclamation of municipal or domestic sewage, including lands dedicated to the disposal of sewage sludge that are located within the confines of the facility with a design flow of 1.0 MGD or more, or required to have an approved pretreatment program under 40 CFR Part 403.

SIC Code	Group T: Wastewater Treatment Works	Sampling Required?	Table Number
4952	Sewerage Systems	No	--

When an industrial facility, described by the above coverage provisions of this section, has industrial activities being conducted onsite that meet the description(s) of industrial activities in another section(s), that industrial facility shall comply with any and all applicable monitoring and pollution prevention plan requirements of the other section(s) in addition to all applicable requirements in this section. The monitoring and pollution prevention plan terms and conditions of this multi-sector permit are additive for industrial activities being conducted at the same industrial facility (co-located industrial activities). The operator of the facility shall determine which other monitoring and pollution prevention plan section(s) of this permit (if any) are applicable to the facility.

(2) Special Conditions

**Prohibition of Non-storm Water Discharges.** Prohibited non-storm water discharges including sanitary and industrial wastewater, and equipment and vehicle washwaters are not authorized by this permit. The operators of such discharges must obtain coverage under a separate NPDES permit if discharged to waters of the State or through a municipal separate storm sewer system.

- (3) Numeric Effluent Limitations. There are no numeric effluent limitations with this section of the permit.
- (4) Monitoring and Reporting Requirements

Quarterly Visual Examination of Storm Water Quality. Facilities shall perform and document a visual examination of a storm water discharge associated with industrial activity from each outfall, except discharges exempted below. The examination must be made at least once in each of the following designated periods during daylight hours unless there is insufficient rainfall or snow melt to produce a runoff event: January through March; April through June; July through September; and October through December.

- (a) Examinations shall be made of samples collected within the first 30 minutes (or as soon thereafter as practical, but not to exceed 1 hour) of when the runoff or snowmelt begins discharging. The examinations shall document observations of color, odor, clarity, floating solids, settled solids, suspended solids, foam, oil sheen, and other obvious indicators of storm water pollution. The examination must be conducted in a well lit area. No analytical tests are required to be performed on the samples. All such samples shall be collected from the discharge resulting from a storm event that is greater than 0.1 inches in magnitude and that occurs at least 72 hours from the previously measurable (greater than 0.1 inch rainfall) storm event. Where practicable, the same individual should carry out the collection and examination of discharges for entire permit term.
- (b) Visual examination reports must be maintained onsite in the pollution prevention plan. The report shall include the examination date and time, examination personnel, the nature of the discharge (i.e., runoff or snow melt), visual quality of the storm water discharge (including observations of color, odor, clarity, floating solids, settled solids, suspended solids, foam, oil sheen, and other obvious indicators of storm water pollution), and probable sources of any observed storm water contamination.
- (c) When a facility has two or more outfalls that, based on a consideration of industrial activity, significant materials, and management practices and activities within the area drained by the outfall, the permittee reasonably believes discharge substantially identical effluents, the permittee may collect a sample of effluent of one of such outfalls and report that the observation data also applies to the substantially identical outfall(s) provided that the permittee includes in the storm water pollution prevention plan a description of the location of the outfalls and explains in detail why the outfalls are expected to discharge substantially identical effluents. In addition, for each outfall that the permittee believes is representative, an estimate of the size of the drainage area (in square feet) and an estimate of the runoff coefficient of the drainage area [e.g.,

low (under 40 percent), medium (40 to 65 percent), or high (above 65 percent)] shall be provided in the plan.

- (d) When a discharger is unable to collect samples over the course of the visual examination period as a result of adverse climatic conditions, the discharger must document the reason for not performing the visual examination and retain this documentation onsite with the results of the visual examination. Adverse weather conditions which may prohibit the collection of samples include weather conditions that create dangerous conditions for personnel (such as local flooding, high winds, hurricane, tornadoes, electrical storms, etc.) or otherwise make the collection of a sample impracticable (drought, extended frozen conditions, etc.).
- (e) When a discharger is unable to conduct visual storm water examinations at an inactive and unstaffed site, the operator of the facility may exercise a waiver of the monitoring requirement as long as the facility remains inactive and unstaffed. The facility must maintain a certification with the pollution prevention plan stating that the site is inactive and unstaffed so that performing visual examinations during a qualifying event is not feasible.

#### **Group AD.**

#### **Salt Storage Areas, Weigh Stations, and Other Facilities Not Covered Under Other Groups**

- (1) Discharges Covered Under This Section. The requirements listed under this section shall apply to storm water discharges associated with industrial activity from those facilities that are not covered for such discharges. It is the intent of the division that this Sector include those storm water discharges which had previously been covered under the Tennessee Baseline General Permit for Storm Water and which are not covered under Sectors A thru AC, as well as those facilities which had no previous storm water permit that are applying for the first time and will not be covered under Sectors A thru AC.

When an industrial facility, described by the above coverage provisions of this section, has industrial activities being conducted onsite that meet the description(s) of industrial activities in another section(s), that industrial facility shall comply with any and all applicable monitoring and pollution prevention plan requirements of the other section(s) in addition to all applicable requirements in this section. The monitoring and pollution prevention plan terms and conditions of this multi-sector permit are additive for industrial activities being conducted at the same industrial facility (co-located industrial activities). The operator of the facility shall determine which other monitoring and pollution prevention plan section(s) of this permit (if any) are applicable to the facility.

(2) Special Conditions

Prohibition of Non-storm Water Discharges. This permit does not authorize the discharge of process wastewater.

(3) Numeric Effluent Limitations. There are no numeric effluent limitations with this section of the permit.

(4) Monitoring and Reporting Requirements

- (a) Analytical Monitoring Requirements. Permittees must monitor their storm water discharges associated with industrial activity at least quarterly (4 times per year) during years 2 and 4 except as provided in paragraphs 5.a.(3) (Sampling Waiver), 5.a.(4) (Representative Discharge), and 5.a.(5) (Alternative Certification). Facilities are required to monitor their storm water discharges for the pollutants of concern listed in Table AD-1 below. Facilities must report in accordance with 5.b. (Reporting). In addition to the parameters listed in Table AD-1 below, the permittee shall provide the date and duration (in hours) of the storm event(s) sampled; rainfall measurements or estimates (in inches) of the storm event that generated the sampled runoff; the duration between the storm event sampled and the end of the previous measurable (greater than 0.1 inch rainfall) storm event; and an estimate of the total volume (in gallons) of the discharge sampled.

**Table AD-1. Monitoring Requirements**

<b>Pollutants of Concern</b>	<b>Cut-Off Concentration</b>	<b>Sector Median Value * [mg/L]</b>
Biochemical Oxygen Demand (BOD5)	30 mg/L	6
Chemical Oxygen Demand (COD)	120 mg/L	46
Total Suspended Solids	200 mg/L	42
Ammonia as Nitrogen	4 mg/L	0.29
Oil and Grease	15 mg/L	5
pH	5.0 - 9.0	Not Applicable

\* Sector Median Value is a pollutant concentration calculated from all sampling results provided from facilities classified in this sector during the previous permit term. By definition, a median is a statistical term identifying a number that divides numerically ordered data into two equal halves. In easier terms, the median is the middle piece of data when those data are placed in numerical order, or the average of the middle two if there is an even number of items. Therefore, median concentration(s) listed above represent a concentration value typical for and achieved by industries in this sector.

- (i) **Monitoring Periods.** Facilities shall monitor samples collected during the sampling periods of: January through March, April through June, July through September, and October through December for the years specified in paragraph a. (above).
- (ii) **Sample Type.** A minimum of one grab sample shall be taken. All such samples shall be collected from the discharge resulting from a storm event that is greater than 0.1 inches in magnitude and that occurs at least 72 hours from the previously measurable (greater than 0.1 inch rainfall) storm event. The required 72-hour storm event interval is waived where the preceding measurable storm event did not result in a measurable discharge from the facility. The required 72-hour storm event interval may also be waived where the permittee documents that less than a 72-hour interval is representative for local storm events during the season when sampling is being conducted. The grab sample shall be taken during the first 30 minutes of the discharge. If the collection of a grab sample during the first 30 minutes is impracticable, a grab sample can be taken during the first hour of the discharge, and the discharger shall submit with the monitoring report a description of why a grab sample during the first 30 minutes was impracticable. If storm water discharges associated with industrial activity commingle with process or nonprocess water, then where practicable permittees must attempt to sample the storm water discharge before it mixes with the non-storm water discharge.

In addition, the permittee shall evaluate the results obtained from sampling and monitoring following the required annual sampling events to determine whether the facility is below, meets, or exceeds the monitoring cut-off concentrations as shown in the table above. If the results of annual storm water runoff monitoring demonstrate that the facility has exceeded the cut-off concentration(s), the permittee must inform the division's local Environmental Assistance Center in writing within 30 days from the time storm water monitoring results were received, describing the likely cause of the exceedance(s). Furthermore, within 60 days from the time storm water monitoring results were received, the facility must review its storm water pollution prevention plan, make any modifications or additions to the plan which would assist in reducing effluent concentrations to less than the monitoring cut-off concentrations for that facility, and submit to the division's local Environmental Assistance Center a brief summary of the proposed SWPPP modifications (including a timetable for implementation).

(iii) Sampling Waiver

- (a) Adverse Conditions—When a discharger is unable to collect samples within a specified sampling period due to adverse climatic conditions, the discharger shall collect a substitute sample from a separate qualifying event in the next period and submit the data along with data for the routine sample in that period. Adverse weather conditions that may prohibit the collection of samples include weather conditions that create dangerous conditions for personnel (such as local flooding, high winds, hurricane, tornadoes, electrical storms, etc.) or otherwise make the collection of a sample impracticable (drought, extended frozen conditions, etc.).
- (b) Low Concentration Waiver—When the average concentration for a pollutant calculated from all monitoring data collected from an outfall during the monitoring period January 1, 1998 lasting through December 31, 1998 is less than the corresponding value for that pollutant listed in Table AD-1 under the column Monitoring Cut-Off Concentration, a facility may waive monitoring and reporting requirements in the monitoring period beginning January 1, 2000 lasting through December 31, 2000. The facility must submit to the Division of Water Pollution Control, in lieu of the monitoring data, a certification that there has not been a significant change in industrial activity or the pollution prevention measures in areas of the facility which drain to the outfall for which sampling was waived.
- (c) When a discharger is unable to conduct quarterly chemical storm water sampling at an inactive and unstaffed site, the operator of the facility may exercise a waiver of the monitoring requirements as long as the facility remains inactive and unstaffed. The facility must submit to the Division of Water Pollution Control, in lieu of monitoring data, a certification statement on the DMR stating that the site is inactive and unstaffed so that collecting a sample during a qualifying event is not possible.
- (iv) Representative Discharge. When a facility has two or more outfalls that, based on a consideration of industrial activity, significant materials, and management practices and activities within the area drained by the outfall, the permittee reasonably believes discharge substantially identical effluents, the permittee may test the effluent of one of such outfalls and report that the quantitative data also applies to the substantially identical outfall(s) provided that the

permittee includes in the storm water pollution prevention plan a description of the location of the outfalls and explains in detail why the outfalls are expected to discharge substantially identical effluents. In addition, for each outfall that the permittee believes is representative, an estimate of the size of the drainage area (in square feet) and an estimate of the runoff coefficient of the drainage area [e.g., low (under 40 percent), medium (40 to 65 percent), or high (above 65 percent)] shall be provided in the plan. The permittee shall include the description of the location of the outfalls, explanation of why outfalls are expected to discharge substantially identical effluents, and estimate of the size of the drainage area and runoff coefficient with the TMSP Storm Water Monitoring Report.

- (v) **Alternative Certification.** A discharger is not subject to the monitoring requirements of this section provided the discharger makes a certification for a given outfall or on a pollutant-by-pollutant basis in lieu of monitoring reports required under paragraph b below, under penalty of law, signed in accordance with Part VII.G. (Signatory Requirements), that material handling equipment or activities, raw materials, intermediate products, final products, waste materials, by-products, industrial machinery or operations, or significant materials from past industrial activity that are located in areas of the facility within the drainage area of the outfall are not presently exposed to storm water and are not expected to be exposed to storm water for the certification period. Such certification must be retained in the storm water pollution prevention plan, and submitted to the Division of Water Pollution Control in accordance with Part VI.C. of this permit. In the case of certifying that a pollutant is not present, the permittee must submit the certification along with the monitoring reports required under paragraph (b) below. If the permittee cannot certify for an entire period, they must submit the date exposure was eliminated and any monitoring required up until that date. This certification option is not applicable to compliance monitoring requirements associated with effluent limitations.
- (b) **Reporting.** Permittees with metal fabricating and engraving facilities shall submit monitoring results for each outfall associated with industrial activity [or a certification in accordance with Sections (3), (4), or (5) above] obtained during the reporting period beginning January 1, 1998 lasting through December 31, 1998 on TMSP Storm Water Monitoring Report Form(s) postmarked no later than the 31st day of the following March. Monitoring results (or a certification in accordance with Sections (3), (4), or (5) above) obtained during the period beginning January 1, 2000 lasting through December 31, 2000 shall be submitted on TMSP Storm Water

Monitoring Report Form(s) postmarked no later than the 31st day of the following March. For each outfall, one signed TMSP Storm Water Monitoring Report form must be submitted to the Division of Water Pollution Control per storm event sampled. Signed copies of TMSP Storm Water Monitoring Reports, or said certifications, shall be submitted to the Enforcement and Compliance Section of the Division of Water Pollution Control located at 6th Floor L & C Annex, 401 Church Street, Nashville, TN 37243-1534.

Additional Notification. In addition to filing copies of discharge monitoring reports in accordance with paragraph b (above), facilities with at least one storm water discharge associated with industrial activity through a large or medium municipal separate storm sewer system (systems serving a population of 100,000 or more) must submit signed copies of discharge monitoring reports to the operator of the municipal separate storm sewer system in accordance with the dates provided in paragraph b (above).

- (c) Quarterly Visual Examination of Storm Water Quality. Facilities shall perform and document a visual examination of a storm water discharge associated with industrial activity from each outfall, except discharges exempted below. The examination must be made at least once in each designated period [described in paragraph (1) below] during daylight hours unless there is insufficient rainfall or snow melt to produce a runoff event.
  - (i) Examinations shall be conducted in each of the following periods for the purposes of visually inspecting storm water quality associated with storm water runoff or snowmelt: January through March; April through June; July through September; and October through December.
  - (ii) Examinations shall be made of samples collected within the first 30 minutes (or as soon thereafter as practical, but not to exceed 1 hour) of when the runoff or snowmelt begins discharging. The examinations shall document observations of color, odor, clarity, floating solids, settled solids, suspended solids, foam, oil sheen, and other obvious indicators of storm water pollution. The examination must be conducted in a well lit area. No analytical tests are required to be performed on the samples. All such samples shall be collected from the discharge resulting from a storm event that is greater than 0.1 inches in magnitude and that occurs at least 72 hours from the previously measurable (greater than 0.1 inch rainfall) storm event. Where practicable, the same individual should carry out the collection and examination of discharges for the entire permit term.

- (iii) Visual examination reports must be maintained onsite in the pollution prevention plan. The report shall include the examination date and time, examination personnel, the nature of the discharge (i.e., runoff or snow melt), visual quality of the storm water discharge (including observations of color, odor, clarity, floating solids, settled solids, suspended solids, foam, oil sheen, and other obvious indicators of storm water pollution), and probable sources of any observed storm water contamination.
- (iv) When a facility has two or more outfalls that, based on a consideration of industrial activity, significant materials, and management practices and activities within the area drained by the outfall, the permittee reasonably believes discharge substantially identical effluents, the permittee may collect a sample of effluent of one of such outfalls and report that the examination data also applies to the substantially identical outfall(s) provided that the permittee includes in the storm water pollution prevention plan a description of the location of the outfalls and explains in detail why the outfalls are expected to discharge substantially identical effluents. In addition, for each outfall that the permittee believes is representative, an estimate of the size of the drainage area (in square feet) and an estimate of the runoff coefficient of the drainage area [e.g., low (under 40 percent), medium (40 to 65 percent), or high (above 65 percent)] shall be provided in the plan.
- (v) When a discharger is unable to collect samples over the course of the visual examination period as a result of adverse climatic conditions, the discharger must document the reason for not performing the visual examination and retain this documentation onsite with the records of the visual examinations. Adverse weather conditions which may prohibit the collection of samples include weather conditions that create dangerous conditions for personnel (such as local flooding, high winds, hurricane, tornadoes, electrical storms, etc.) or otherwise make the collection of a sample impracticable (drought, extended frozen conditions, etc.).
- (vi) When a discharger is unable to conduct visual storm water examinations at an inactive and unstaffed site, the operator of the facility may exercise a waiver of the monitoring requirement as long as the facility remains inactive and unstaffed. The facility must maintain a certification with the pollution prevention plan stating that the site is inactive and unstaffed so that performing visual examinations during a qualifying event is not feasible.

**Table D-1. List of TDOT Facilities and Categorization for Storm Water Control**

Facility Location	Facility Category	County	Group
Clinton	CG	Anderson	P
Shelbyville	CG	Bedford	P
Camden	CG	Benton	P
I-40 W	RA	Benton	AD
I-40 E	RA	Benton	AD
Pikeville	CG	Bledsoe	P
Alcoa	CG	Blount	P
Cleveland	CG	Bradley	P
LaFollette	DG	Campbell	P
I-75	WC	Campbell	T
I-75/Stinking Creek	SS	Campbell	AD
I-75/SR63	SS	Campbell	AD
Woodbury	CG	Cannon	P
McKenzie	DG	Carroll	P
Elizabethton	CG	Carter	P
Ashland City	CG	Cheatham	P
I-24/SR49	SS	Cheatham	AD
Henderson	CG	Chester	P
Harrogate	CG	Claiborne	P
Moss	CG	Clay	P
Newport	DG	Cocke	P
I-40	WC	Cocke	T
Tullahoma	DG	Coffee	P
Hillsboro	CG	Coffee	P
I-24	WS	Coffee	AD
I-24	WS	Coffee	AD
I-24 (MM 107)	SS	Coffee	AD
Alamo	CG	Crockett	P
Crossville	DG	Cumberland	P
I-40 W	RA	Cumberland	AD
I-40 E	RA	Cumberland	AD
I-40E (MM 307.5)	SS	Cumberland	AD
I-40W (MM 340.1)	SS	Cumberland	AD

Facility Location	Facility Category	County	Group
Nashville (HQ)	RG	Davidson	P
Nashville Airport	AH	Davidson	S
Nashville (FM)	RG	Davidson	P
I-40/SR69	SS	Decatur	AD
Parsons	CG	Decatur	P
Dowelltown	CG	DeKalb	P
Dickson	CG	Dickson	P
I-40 E	RA	Dickson	AD
I-40 W	RA	Dickson	AD
I-40W (MM 169)	SS	Dickson	AD
Newbern	DG	Dyer	P
I-155	WC	Dyer	AD
Braden	SS	Fayette	AD
Somerville	CG	Fayette	P
Jamestown	CG	Fentress	P
Winchester	CG	Franklin	P
Trenton	CG	Gibson	P
Pulaski	CG	Giles	P
I-65	WC	Giles	AD
Bean Station	CG	Grainger	P
Greeneville	CG	Greene	P
I-81 S	RA	Greene	T
I-81 N	RA	Greene	T
I-81	WS	Greene	AD
I-81 (MM 29)	SS	Greene	AD
Coalmont	CG	Grundy	P
I-24 W	RA	Grundy	AD
I-24 E	RA	Grundy	AD
Morristown	DG	Hamblen	P
Chattanooga	RG	Hamilton	P
I-24	WC	Hamilton	AD
I-75	WC	Hamilton	AD
SR111/Back Valley Rd	SS	Hamilton	AD

**Table D-1. List of TDOT Facilities and Categorization for Storm Water Control**

Facility Location	Facility Category	County	Group
Sneedville	CG	Hancock	P
Bolivar	CG	Hardeman	P
Crump	CG	Hardin	P
Rogersville	CG	Hawkins	P
Brownsville	CG	Haywood	P
I-40	WS	Haywood	AD
I-40	WS	Haywood	AD
I-40/SR104	SS	Henderson	AD
Lexington	CG	Henderson	P
Paris	CG	Henry	P
Centerville	CG	Hickman	P
Erin	CG	Houston	P
I-40/SR13	SS	Humphreys	AD
I-40	CG	Humphreys	P
McEwen	DG	Humphreys	P
Gainesboro	CG	Jackson	P
Dandridge	CG	Jefferson	P
I-40 E	RA	Jefferson	AD
I-40 W	RA	Jefferson	AD
I-81 S	RA	Jefferson	AD
Shady Valley	CG	Johnson	P
Mountain City	CG	Johnson	P
Knoxville	RG	Knox	P
I-40 E	WS	Knox	AD
I-40 W	WS	Knox	AD
Knoxville (Old Site)	SS	Knox	AD
Wynnborg	CG	Lake	P
Ripley	CG	Lauderdale	P
US-51 N	RA	Lauderdale	AD
US-51 S	RA	Lauderdale	AD
Lawrenceburg	DG	Lawrence	P
Hohenwald	CG	Lewis	P
Fayetteville	CG	Lincoln	P

Facility Location	Facility Category	County	Group
Lenoir City	CG	Loudon	P
LaFayette	CG	Macon	P
I-40 W	RA	Madison	AD
I-40 E	RA	Madison	AD
Jackson	RG	Madison	AD
Monteagle	CG	Marion	P
Whitwell	CG	Marion	P
I-24 E	RA	Marion	AD
I-24	WC	Marion	AD
Belfast	DG	Marshall	P
Columbia	CG	Mauzy	P
Athens	CG	McMinn	P
I-75 N	RA	McMinn	AD
I-75 S	RA	McMinn	AD
I-75/Exit 36	SS	McMinn	AD
Bethel Springs	DG	McNairy	P
Decatur	CG	Meigs	P
Madisonville	CG	Monroe	P
Clarksville	DG	Montgomery	P
I-24	WC	Montgomery	AD
Lynchburg	CG	Moore	P
Wartburg	CG	Morgan	P
Troy	CG	Obion	P
Livingston	CG	Overton	P
Linden	CG	Perry	P
Byrdstown	CG	Pickett	P
Ducktown	CG	Polk	P
Benton	CG	Polk	P
Cookeville	DG	Putnam	P
Spring City	CG	Rhea	P
Harriman	DG	Roane	P
Springfield	CG	Robertson	P
I-65	WC	Robertson	AD

**Table D-1. List of TDOT Facilities and Categorization for Storm Water Control**

Facility Location	Facility Category	County	Group
I-65	WS	Robertson	AD
I-65	WS	Robertson	AD
I-65S/SR25	SS	Robertson	AD
Murfreesboro	CG	Rutherford	P
I-24W (MM 72)	SS	Rutherford	AD
Helenwood	CG	Scott	P
Dunlap	DG	Sequatchie	P
Sevierville	CG	Sevier	P
Memphis	CG	Shelby	P
Arlington	DG	Shelby	P
I-55	WC	Shelby	AD
I-40	WC	Shelby	AD
Boswell Street	SS	Shelby	AD
Memphis Help	HF	Shelby	P
Gordonsville	CG	Smith	P
I-40	WC	Smith	AD
I-40/SR53	SS	Smith	AD
Dover	CG	Stewart	P
Blountville	CG	Sullivan	P
I-81	WC	Sullivan	T
Gallatin	DG	Sumner	P
Covington	CG	Tipton	P
Hartsville	CG	Trousdale	P
Erwin	CG	Unicoi	P
Maynardsville	CG	Union	P
Spencer	CG	Van Buren	P
McMinnville	CG	Warren	P
Johnson City	DG	Washington	P
Waynesboro	CG	Wayne	P
Martin	SS	Weakley	AD
Dresden	CG	Weakley	P
Sparta	CG	White	P

Facility Location	Facility Category	County	Group
Franklin	CG	Williamson	P
Fairview	CG	Williamson	P
SR840/SR106	SS	Williamson	AD
Lebanon	CG	Wilson	P
Lebanon (New Site)	SS	Wilson	AD

**Facility Category Legend**

Facility Category	Count
Regional Garages (RG)	5
District Garages (DG)	18
County Garages (CG)	80
Weigh Stations (WS)	9
Welcome Centers (WC)	13
Rest Areas (RA)	20
Salt Storage Sites (SS)	22
Airport Hangar (AH)	1
Help Facility (HF)	1
<b>Total</b>	<b>169</b>

**Facility Group Legend**

Description	Group
Regional, District, County, and Other Garages and Equipment Staging Areas	P
Airport Facilities	S
Welcome Centers and Rest Areas	T
Salt Storage Areas, Weigh Stations, and Other Facilities Not Covered Under Other Groups	AD

## **RATIONALE**

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### **TENNESSEE DEPARTMENT OF TRANSPORTATION MUNICIPAL SEPARATE STORM SEWER SYSTEM NPDES PERMIT NO. TNS0077585**

#### **1. DISCHARGER(S)**

This permit and rationale sheet address the discharge of storm water runoff to and from the municipal separate storm sewer system (MS4) owned and operated by the Tennessee Department of Transportation.

**The application was submitted by:  
The Tennessee Department of Transportation  
Contact: Mr. John Hewitt**

**Address: State of Tennessee  
Department of Transportation  
Environmental Planning and Permits Office  
Suite 900, J.K. Polk Building  
505 Deadrick Street  
Nashville, TN 37243-0334**

The Tennessee Department of Transportation (TDOT) and the Tennessee Department of Environment and Conservation (TDEC) signed an Amended Consent Order and Agreement on signed March 10, 2004. In part, this consent order instructs TDOT to develop a statewide storm water management plan, conduct research projects and develop and foster public participation in its projects. The terms and conditions of this permit will compliment, not replace, this amended consent order.

#### **2. PERMIT STATUS**

This is the initial permit for this MS4. Part 1 of the application was received in September 2000 and Part 2 of the application was received on September 28, 2001. The Federal Clean Water Act (CWA) amendments of 1987 required the Environmental Protection Agency (EPA) to establish regulations setting forth NPDES permit application requirements for storm water discharges for certain activities, including discharges from MS4s. In November 1990, EPA published Phase I of these regulations, which outlined the application requirements for large and medium MS4s serving populations of 100,000 or greater. A municipal separate storm sewer system is defined by EPA as any conveyance that is owned or operated by a state or local government entity and is designed for

collecting or conveying storm water (excluding publicly owned treatment works). Although the regulations themselves do not address the subject of departments of transportation, EPA clarified in the preamble to the regulations that owners and operators of roads, streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains that discharge waters to the United States are considered to be municipal separate storm sewers.

Regulated large and medium MS4s under Phase I were required to submit Part 2 of their permit application to the TDEC in the early 1990's. The cities of Memphis and Nashville submitted permit applications by November 16, 1992; Chattanooga and Knoxville submitted applications by May 17, 1993. These four cities were subsequently issued NPDES permits. At that time, TDOT was unaware of the duty to apply under the federal rule for their storm water discharges in these metropolitan areas, and TDEC failed to catch this oversight.

On December 8, 1999, EPA published Phase II of the storm water regulations that outlined criteria for designating which small MS4s would be covered by the rule and presented the permit application requirements for these MS4s. In 2000, TDEC recognized that TDOT had not applied for Phase I permitting and requested that the agency apply for coverage of their discharges in both the Phase I MS4s and the Phase II MS4s. To address the failure to apply under Phase I, TDOT was requested to complete their Phase I/Phase II application package by September 30, 2001, 1-1/2 years before the permit applications for the other Phase II MS4s were due.

### **3. AREA OF PERMIT COVERAGE**

Phase I of the regulations required permitting of medium and large MS4s, i.e., those greater than 100,000 in population. Under this Phase, each of the four major metropolitan areas of the state, Nashville, Knoxville, Memphis and Chattanooga were permitted under an individual NPDES permit. Phase II of the regulations require permitting of certain regulated small MS4s (<100,000 population) that are either (1) located within an urbanized area or, (2) is itself an urbanized area having a population of at least 50,000 and a population density at least 1000 per square mile or, (3) having a population of between 10,000 and 50,000 and a population density of at least 1000 per square mile, or (3) designated by TDEC because it has the potential to cause an adverse impact on water quality.

The small MS4s have been covered under TDEC's general NPDES permit for Small Separate Storm Sewer Systems, Permit No. TNS000000 issued in February 2003. Notice of Intents (NOI) were required by March 2003. As of June 2004, regulated small MS4s in Tennessee included 85 systems. The 85 small MS4s represent 20 county storm sewer systems and 65 storm sewer systems operated by municipalities.

The federal storm water rules require that all state-operated highways, including interstates, within the large, medium, and small MS4s be permitted. Thus jurisdiction of this TDOT permit could be limited to the area of the four large MS4s and the 85 small MS4s. However storm water issues associated with TDOT operations are not just located in urban areas. In the preamble to the 1990 final rule, the EPA stated that an entire State highway system may be considered as a MS4. In this case, 40 CFR 122.26(b)(4)(iv) would apply, and the permitting authority may petition a department of transportation to obtain coverage due to the inter-relationship between the discharges of the designated storm sewer and the discharges from municipal separate storm sewers described in 40 CFR 122.26(b)(4)(i) or (ii). Issues involving construction, illicit connections, roadway maintenance, and TDOT operations at regional maintenance facilities are statewide. For these reasons, the division has petition TDOT to submit an application for an individual NPDES MS4 permit. Thus, it is deemed in the best interest of both TDOT and the State to have this permit cover all highways, not just those highway portions in the urban areas. Therefore this is a statewide permit.

Consideration was also given to including TDOT under the Small MS4 General Storm Water Permit. This permit was established to allow many small municipal systems that are similar in nature to be covered by the same permit. However, because TDOT is such a large and unique entity relative to storm water issues, it was deemed appropriate that an individual permit (rather than a general permit) be issued.

#### **4. LIMITATIONS ON COVERAGE**

The MS4 permit program for municipal storm water is broad in nature and overlaps with permit programs already in place by the division. It is not the intent that this individual TDOT permit take the place of existing permit programs that are (or could) cover specific TDOT activities. Therefore, this permit specifically excludes these types of discharges/activities that can be covered under existing division of WPC permits. However, to obtain the exclusion in this MS4 permit, these discharges/activities must be permitted under the appropriate existing NPDES permit. These discharges/activities are as follows:

##### Construction Activity

TDOT is presently required to file a Notice of Intent and obtain a Tennessee General Permit No. TNR100000 for Storm Water Discharges from Construction Activities disturbing one acre or more. This is a requirement of the Amended Order and Agreement of March 10, 2004 between TDEC and TDOT. The MS4 permit reaffirms that obtaining the Construction permits is a requirement.

## ARAP

TDOT is required to obtain an Aquatic Resource Alternation Permit (ARAP) for any project that will disturb streambeds or stream banks. This permit does not replace the ARAP permit, but reinforces the requirement to obtain and abide by the conditions of the ARAP permit.

## **5. MS4 DESCRIPTION**

TDOT operated roads include interstates, expressways, arterials, major collectors, minor collectors, and local streets. The TDOT Commissioner has the authority to designate state routes and can authorize a local road to become a state route. The total of state-maintained roads is 13,752 miles or 16% of the total highway miles in the state. These roads carry 72% of the total state road traffic. There are 1074 miles of Interstate highways. Although the interstates represent just over 1% of the state highway miles, they carry approximately 25% of the state's traffic. Within the four large MS4s, TDOT operates approximately 237 miles of Interstate and approximately 880 miles of State Routes. These roads encompass 35,292 acres of right-of-way.

TDOT does not maintain one large storm sewer system, but rather thousands of short sections of pipes, culverts, ditches, or bridges that allow drainage to flow off of or under the roadway. The system has been mapped on thousands of individual design drawings and is available in GIS. Submitted with the Part II application was GIS (ArcView format) including cross-sectional data on all road segments under TDOT jurisdiction occurring in the MS4s considered at the time of the application. This data was derived from the extensive TDOT database called the Tennessee Road Information Management System (TRIMS). In addition to the geographic location of all road segments in the MS4s, the system allows the user to identify information such as number, type and width of lanes, shoulders, and medians as well as the total right-of-way width. In an effort to provide information for TDEC to use this system, tools are provided to calculate the total areas in acres of impervious surfaces, grass areas and other pervious areas. The report titled *GIS DATA SUMMARY FROM TN ROADWAY INFORMATION MANAGEMENT SYSTEM (TRIMS)* is included in Appendix B of the permit application, which describes in greater detail the GIS data provided.

## **6. RECEIVING WATERS**

One of the requirements of MS4 permits is the identification of storm sewer outfalls and the receiving streams (Waters of the State) to which they flow. Waters of the state are defined in the Tennessee Water Quality Control Act (TN WQCA) as:

“Waters” means any and all water, public or private, on or beneath the surface of the ground, which are contained within, flow through, or border upon Tennessee or any portion thereof except those bodies of water confined to and retained

within the limits of private property in single ownership which do not combine or effect a junction with natural surface or underground waters.

Wet weather conveyances are conveyances that flow in direct response to precipitation. Wet weather conveyances are not protected under the TN WQCA to the same extent as other waters of the State. The definition of a wet weather conveyance as taken from the Tennessee Water Quality Board Rule 1200-4-3-.04(4) is given as follows:

“Wet weather conveyances” are man made or natural watercourses, including natural watercourses that have been modified by channelization, that flow only in direct response to precipitation runoff in their immediate locality and whose channels are above the groundwater table and which do not support fish and aquatic life and are not suitable for water supplies.

The Tennessee Roadway Information Management System (TRIMS) presently does not identify the receiving stream for all storm water outfalls from TDOT roadways. The identification of outfalls and stream segments is something that must be added to the TRIMS database.

## **7. REGULATED MUNICIPAL SEPARATE STORM SEWERS**

Municipal Separate Storm Sewer is defined by EPA as a conveyance, or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, and storm drains):

- a. owned or operated by a State, city, town, borough, county, parish, district, or association or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as sewer district, flood control district or drainage district, or similar entity, or an Indian Tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States;
- b. designed or used for collecting or conveying storm water;
- c. which is not a combined sewer; and
- d. which is not a part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

Where a TDOT culvert, pipe, or bridge is used solely to transfer Waters of the State (i.e., streams as defined above) under TDOT highways, these specific structures are not considered municipal separate storm sewers under the above definition. Also the downstream outlet of these structures is not considered a outfall. Because TDOT does not have the jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes in waters of the State, TDOT cannot be responsible for management of storm water quality above and below these structures (the exception being that TDOT is responsible for the

contribution of storm water from their roadway and ROW to the drainage structure).

However, under this permit, TDOT is required to train their field personnel in identifying and reporting illicit discharges observed in these streams. For "Wet Weather Conveyances" (see above definition) it is recognized that TDOT provides culverts, pipes and bridges to direct these flows under the roadway. These structures are considered municipal storm sewers under this permit and the downstream end of these structures is considered to be an outfall. For many of these structures TDOT; road surface and ROW is the major contributor to the runoff discharge. However, it is recognized that some of these conveyances may have (1) large drainage areas upgradient of the highway, (2) the drainage areas may have multiple land owners and land use activities which impact storm water runoff, and (3) TDOT does not have the jurisdiction to control activities on these properties. Nevertheless, TDOT has the responsibility for identifying storm water runoff quality issues associated with these storm sewers and assisting TDEC in improving the quality of the runoff and preventing water pollution.

For runoff from properties that directly adjoin TDOT right-of-ways and that have direct access to the roadway, it is believed that TDOT has the jurisdiction to control access and storm water runoff onto their ROW. This MS4 permit requires TDOT to undertake an employee and contractor education program that will also address storm runoff.

## **8. PERMIT DEVELOPMENT**

### **8.1 Introduction**

The Water Quality Act of 1987, which set up the present NPDES permit requirements for discharges of urban runoff, requires that the NPDES permit issued to TDOT:

- a. include a requirement to effectively prohibit non-storm water discharges into the storm sewers; and
- b. include a requirement that the permittee(s) reduce pollutants in discharges from the MS4 to the "Maximum Extent Practicable" (MEP).

This permit will impose Best Management Practices (BMPs), in the form of required source control measures and a comprehensive Storm Water Management Program (SWMP), as the mechanism to implement the statutory requirements.

While Section 402(p)(3)(B)(iii) of the CWA includes structural controls as a component of MEP, the state recognizes that the permittee may first implement pollution prevention measures and reserve more costly

structural controls for higher-priority watersheds or where source controls are unfeasible or ineffective and where pilot studies have been done to prove the effectiveness of the structural control.

## 8.2 Necessary MS4 Program Elements

The program elements enumerated by EPA for the management program of large and medium municipal MS4s are given as follows:

Required Program Element	Regulatory References
Operation and maintenance of structural controls	40 CFR 122.26(d)(2)(iv)(A)(1)
Control of discharges from areas of development and new development	40 CFR 122.26(d)(2)(iv)(A)(2)
Street and road operation and maintenance to control impacts of storm water discharges	40 CFR 122.26(d)(2)(iv)(A)(3)
Assuring that flood control projects consider water quality impacts	40 CFR 122.26(d)(2)(iv)(A)(4)
Identification, monitoring, and control of discharges from municipal waste treatment, storage, or disposal facilities	40 CFR 122.26(d)(2)(iv)(A)(5)
Control of pollutants related to application of pesticides, herbicides, and fertilizer	40 CFR 122.26(d)(2)(iv)(A)(6)
Implementation of an inspection program to enforce ordinances to identify and terminate sources of illicit connections or discharge	40 CFR 122.26(d)(2)(iv)(B)(1)
Field screening the MS4 for illicit discharges and illegal dumping	40 CFR 122.26(d)(2)(iv)(B)(2)
Facilitate public reporting of illicit discharges or dumping	40 CFR 122.26(d)(2)(iv)(B)(3)
Prevention, containment, and response to spills that may discharge into the MS4	40 CFR 122.26(d)(2)(iv)(B)(4)
Limit infiltration of sanitary seepage into the MS4	40 CFR 122.26(d)(2)(iv)(B)(7)
Identify, monitor, and control discharges from landfills, hazardous waste storage, disposal and recovery facilities, facilities subject to SARA Title III, Section 313, and facilities contributing substantial pollutant loading to the MS4	40 CFR 122.26(d)(2)(iv)(C)(1)
Control of pollutants in construction runoff	40 CFR 122.26(d)(2)(iv)(D)(1)
Public education	40 CFR 122.26(d)(2)(iv)(A)(6) 40 CFR 122.26(d)(2)(iv)(B)(5) 40 CFR 122.26(d)(2)(iv)(B)(6)

The six minimum control measures specified in the federal rules for small municipal MS4s are:

- A. Public education and outreach on storm water impacts,**
- B. Public involvement/participation,**
- C. Illicit discharge detection and elimination,**
- D. Construction site storm water runoff control,**
- E. Post-construction site storm water management in new development/ redevelopment, and**
- F. Pollution prevention/good housekeeping for municipal operations.**

The program elements and minimum control measures listed above were developed by EPA primarily for municipal storm sewer systems. Their direct application to linear projects such as urban highways requires some interpretation and judgment. However, by keeping focused on the goal of the program, which is to reduce pollutants in storm runoff to the maximum extent practicable, these control measures can be applied to the TDOT system.

In applying the Phase I and Phase II program requirements to this individual permit, the program elements are specified as the six minimum control measures listed in Phase II. However, where deemed appropriate to meet the goals of reducing pollutants in storm water, elements of Phase I or other requirements may be included.

- 8.3 Information from other State DOT Permits  
Existing MS4 permits for other State departments of transportation have been reviewed in the development of this permit. Permits available for review prior to the time of this permit development include the states of California, Colorado, Maryland, Nevada, New Jersey, Mississippi, Michigan and Texas. Also available were the Mississippi DOT Phase II Storm Water Guidance Manual and the Michigan DOT Drainage Manual.

## **9. PERMIT CONDITIONS**

- 9.1 Minimum Control Measures  
The introduction to the December 8, 1999 preamble to the Phase II NPDES regulation reads in part:

Absent evidence to the contrary, EPA presumes that a small MS4 program that implements the six minimum measures in today's rule does not require more stringent limitations to meet water quality standards. Proper implementation of the measures will significantly improve water quality. As discussed further below, however, small permittees should modify their programs if and when available information indicates that water quality considerations warrant greater attention or prescriptiveness in specific components of the municipal program. If the program is inadequate to protect water quality, including water quality standards, the permit will need to be modified to include any more stringent limitations necessary to protect water quality.

The six minimum control measures for MS4s identified in the above preamble are:

- A. Public Education and Outreach
- B. Public Participation/Involvement
- C. Illicit Discharge Detection and Elimination
- D. Construction Site Runoff Control
- E. Post-Construction Runoff Control
- F. Pollution Prevention/Good Housekeeping

Compliance with the conditions of the permit and the series of steps associated with identification and implementation of the minimum control measures will satisfy the requirement of the Water Quality Act of 1987 to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and systems, and design and engineering methods.

- A. TDOT shall develop, implement and maintain educational programs for the public, its contractors and its employees on storm water impacts on waters of the state. For the public, the program must distribute educational materials to these communities and/or conduct outreach activities explaining the impact of storm water discharges from highways to adjacent streams and lakes. The public will be educated on steps that can be taken to reduce pollutants in storm water runoff. For TDOT contractors and employees, the educational and training program will include topics covered in the Tennessee Erosion Prevention and Sediment Control Handbook and requirements in the Amended Consent Order and Agreement between TDOT and TDEC signed March 10, 2004. This program will be implemented at all TDOT facilities including all highway projects and right-of-ways.
- B. TDOT shall include mechanisms for public involvement and participation in its storm water management program. Effort should be made to include all economic and ethnic groups. Ways that should be considered for public involvement include citizen panels, public hearings, citizen cleanup campaigns, adopt-a-highway and others. These activities should promote citizen awareness and reporting of illegal spills, dumping or otherwise disposal of materials onto highways and right-of-ways.
- C. TDOT shall develop, implement and maintain a program to detect and eliminate illicit discharges onto highways, right-of-ways and storm sewer systems. The program should include a mapping system that identifies the location of outfalls for TDOT facilities. In addition the program should include training of TDOT employees

and contractors to identify illicit discharges into their system and to notify the appropriate TDEC Environmental Field Office (EFO).

- D. TDOT shall develop, implement and maintain a program to reduce pollutants in storm water runoff from construction sites. This program shall include a set of Best Management Practices (BMPs) that incorporates all phases of project development including environmental planning, design and construction.
- E. TDOT shall develop, implement and maintain a program to reduce pollutants in storm water runoff from post-construction sites. This program should contain the development and implementation of strategies for a combination of structural and non-structural BMPs appropriate for each construction site. The BMPs chosen should be: appropriate for the project, minimize water quality impacts, and attempt to maintain pre-development storm water runoff conditions.
- F. TDOT must develop and implement an operation and maintenance program that includes a training component with an ultimate goal of preventing or reducing pollutant runoff from its facilities. Employee/contractor training should address chemical handling, spill prevention, pollutant issues at its operations (including regional maintenance facilities, county garages, equipment storage areas, weight stations, equipment washing areas, chemical/oil/petroleum storage areas, material yards, construction sites, debris area borrow areas), and all other activities that may cause pollutants to enter storm water runoff.

9.2. Annual Report

TDOT shall submit an annual report summarizing progress made in each of the above outlined programs.

9.3 Schedule

The schedule of milestones and measurable goals presented in the permit were provided by the applicant.